TOSHIBA

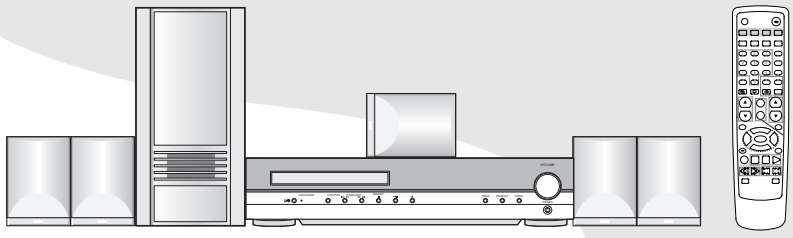
FILE NO. 810-200217

SERVICE MANUAL

DVD RECEIVER

SD-42HKSB

SD-42HKSE



OCT., 2002

SECTION 1. OWNER'S MANUAL

SECTION 2. SERVICE MANUAL

SECTION 1. OWNER'S MANUAL

1-1. INTRODUCTION

■ Safety Precautions

WARNING

RISK OF ELECTRIC SHOCK DO NOT OPEN

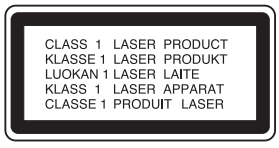
WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK) NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

WARNING: Do not install this equipment in a confined space such as a book case or similar unit.



CAUTION:

This Digital Video Disc Player employs a Laser System.

To ensure proper use of this product, please read this owner's manual carefully and retain for future reference, should the unit require maintenance, contact an authorized service location-see service procedure.

Use of controls, adjustments or the performance of procedures other than those specified herein may result in hazardous radiation exposure.

To prevent direct exposure to laser beam, do not try to open the enclosure. Visible laser radiation when open. DO NOT STARE INTO BEAM.

CAUTION: The apparatus shall not be exposed to water, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

This product is manufactured to comply with the radio interference requirements of EEC DIRECTIVE 89/336/EEC, 93/68/EEC and 73/23/EEC.

Notes on copyrights:

It is forbidden by law to copy, broadcast, show, broadcast via cable, play in public, or rent copyright material without permission.

This product is equipped with copy protection measures developed by Macrovision. Copy protection signals are recorded on some discs. When recording these discs on a VCR, picture noise will appear during playback.

This product incorporates copyright protection technology that is protected by certain U.S. patent claims and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

SERIAL NUMBER: The serial number is found on the back of this unit. This number is unique to this unit and not available to others. You should record requested information here and retain this guide as a permanent record of your purchase.

Model No. _____

Serial No. _____

1-1. INTRODUCTION

■ Some Dos and Don’ts on the Safe Use of Equipment

This equipment has been designed and manufactured to meet international safety standards but, like any electrical equipment, care must be taken if you are to obtain the best results and safety is to be assured. So, please read the points below for your own safety. They are of a general nature, intended to help you with all your electronic consumer products and some points may not apply to the goods you have just purchased.

****

DO read the operating instructions before you attempt to use the equipment.
DO ensure that all electrical connections (including the mains plug, extension leads and inter- connections between the pieces of equipment) are properly made and in accordance with the manufacturer's instructions. Switch off and withdraw the mains plug before making or changing connections.
DO consult your dealer if you are ever in doubt about the installation, operation or safety of your equipment.
DO be careful with glass panels or doors on equipment

****

DON'T remove any fixed cover as this may expose dangerous voltages.
DON'T obstruct the ventilation openings of the equipment with items such as newspapers, tablecloths, curtains, etc. Overheating will cause damage and shorten the life of the equipment.
DON'T allow electrical equipment to be exposed to dripping or splashing, or objects filled with liquids, such as vases, to be placed on the equipment.
DON'T place hot objects or naked flame sources such as lighted candles or nightlights on, or close to equipment. High temperatures can melt plastic and lead to fires.
DON'T use makeshift stands and NEVER fix legs with wood screws - to ensure
complete safety always fit the manufacturer's approved stand or legs with the fixings provided according to the instructions.
DON'T use equipment such as personal stereos or radios so that you are distracted from the requirements of traffic safety. It is illegal to watch television whilst driving.
DON'T listen to headphones at high volume, as such use can permanently damage your hearing.
DON'T leave equipment switched on when it is unattended unless it is specifically stated that it is designed for unattended operation or has a stand-by mode. Switch off using the switch on the equipment and make sure that your family know how to do this. Special arrangements may need to be made for infirm or handicapped people.
DON'T continue to operate the equipment if you are in any doubt about it working
normally, or if it is damaged in any way -switch off, withdraw the mains plug and consult your dealer.

ABOVE ALL
-–NEVER let anyone especially children push anything into holes, slots or any other opening in the case - this could result in a fatal electrical shock;

-–NEVER guess or take chances with electrical equipment of any kind
-–it is better to be safe than sorry!

****

1-1. INTRODUCTION

■ Table of Contents

Introduction

Safety Precautions 1-2
Some Dos and Don'ts on the Safe Use of Equipment 1-3
Table of Contents 1-4
Before Use . . . . . 1-5~6
Playable Discs 1-5
Precautions 1-6
Notes on Discs 1-6
About Symbols 1-6
Front Panel and Display Window 1-7
Remote Control 1-8
Rear Panel 1-9

Preparation

Connections . . . . . 1-10~12
Connecting to a TV 1-10
Connecting to a Optional Equipment. 1-11
Antenna Connections 1-11
Speaker System Connection 1-12
Speaker Position 1-12
Before Operation . . . . . 1-13~17
Delay 1-13
• Delay Time Setting 1-13
• Surround delay time setting 1-13
• Center delay time setting 1-13
• Setting the delay time in the Dolby Digital and Dolby Pro Logic mode 1-13
Sound Adjustment 1-13
• Test Tone 1-13
• Sound Mode 1-14
• Sound Level 1-14
General Explanation. 1-15
On-Screen Display 1-15
Initial Settings 1-16
• Initial Settings General Operation. 1-16
• Language 1-16
• Picture 1-16
• PBC 1-16
• Parental Control. 1-17

Operation

Operation with DVD and Video CD . . . . . 1-18~20
Playing a DVD and Video CD. 1-18
General Features 1-18
• Moving to another TITLE 1-18
• Moving to another CHAPTER/TRACK 1-18
• Slow Motion. 1-18
• Still Picture and Frame-by-Frame Playback . 1-19
• Search. 1-19
• Repeat 1-19
• Repeat A-B 1-19
• Time Search 1-19
• Zoom. 1-20
• Marker Search 1-20
Special DVD Features 1-20
• Top Menu 1-20
• Disc Menu 1-20
• Camera Angle 1-20
• Changing the Audio Language 1-20
• Subtitles. 1-20
Operation with Audio CD and MP3 Disc 1-21
Playing an Audio CD and MP3 Disc 1-21
• Pause 1-21
• Moving to another Track 1-21
• Repeat Track/All/Off. 1-21
• Search. 1-21
• Repeat A-B 1-21
• Changing the Audio Channel 1-21
Programmed Playback 1-22
Programmed Playback with Audio CD and MP3 Disc 1-22
Programmed Playback with Video CD 1-22
Operation with Radio . . . . . 1-23~24
Presetting the radio stations 1-23
Listening to the radio 1-23
Reception of RDS (Radio Data System) Stations . . 1-24
Additional Information . . . . . 1-24~25
Sleep Timer Settings 1-24
Dimmer 1-24
Mute 1-24
Using Headphone Jack 1-24
Selecting input source 1-24
Last Condition Memory 1-25
Screen Saver. 1-25
Video Mode Setting 1-25
Notes on MP3 Discs 1-25

Reference

Troubleshooting 1-26
Language Code List 1-27
Area Code List. 1-28
Specification 1-29

About the symbols for instructions

⚠ Indicates hazards likely to cause harm to the unit itself or other material damage.

Indicates special operating features of this unit.

Indicates tips and hints for making the task easier.

Manufactured under license from Dolby Laboratories. □Dolby□, □Pro Logic□, and the double-D symbol are trademarks of Dolby Laboratories. Confidential Unpublished works. Copyright 1992-1997 Dolby Laboratories. All rights reserved.

Manufactured under license from Digital Theater Systems, Inc. US Pat. No. 5,451,942 and other worldwide patents issued and pending. □DTS□ and □DTS Digital Surround□ trademarks of Digital Theater Systems, Inc. Copyright 1996 Digital Theater Systems, Inc. All rights reserved.

1-1. INTRODUCTION

■ Before Use

Playable Discs

DVD VIDEO	DVD (8 cm / 12 cm disc)
COMPACT disc DIGITAL VIDEO	Video CD (VCD) (8 cm / 12 cm disc)
COMPACT disc DIGITAL AUDIO	Audio CD (8 cm / 12 cm disc)

In addition, this unit can play a CD-R or CD-RW that contains audio titles or MP3 files.

Notes

– Depending on the conditions of the recording equipment or the CD-R/RW disc itself, some CD-R/RW discs cannot be played on the unit.
– The unit cannot play the CD-R/RW discs that contain no data, or contain different kinds of formatted data other than MP3 and CD-DA data.
– Do not attach any seal or label to either side (the labeled side or the recorded side) of a disc.
– Do not use irregular shaped CDs (e.g., heart-shaped or octagonal). It may result in malfunctions.

Notes on DVDs and Video CDs

Some playback operations of DVDs and Video CDs may be intentionally fixed by software manufacturers. As this unit plays DVDs and Video CDs according to disc content designed by the software manufacturer, some playback features of the unit may not be available, or other functions may be added.
Refer also to the instructions supplied with the DVDs and Video CDs. Some DVDs made for business purposes may not be played on the unit.

Regional code of the DVD receiver and DVDs

This DVD receiver is designed and manufactured for playback of region “2” encoded DVD software. The region code on the labels of some DVD discs indicates which type of receiver can play those discs. This unit can play only DVD discs labeled “2 ” or “ALL”. If you try to play any other discs, the message “Check Regional Code” will appear on the TV screen. Some DVD discs may not have a region code label even though their playback is prohibited by area limits.

Note on DTS-encoded CDs

When playing DTS-encoded CDs, excessive noise may be exhibited from the analog stereo output. To avoid possible damage to the audio system, turn down the volume before playing back such discs, adjust the volume gradually, and keep the volume level low. To enjoy DTS Digital Surround™ playback, an external 5.1 channel DTS Digital Surround™ decoder system must be connected to the digital output of the unit.

Disc-related terms

Title (DVD only)

The main film content or accompanying feature content or additional feature content, or music album.
Each title is assigned a title reference number enabling you to locate it easily.

Chapter (DVD only)

Sections of a picture or a musical piece that are smaller than titles.
A title is composed of one or several chapters. Each chapter is assigned a chapter number, enable you to locate the chapter you want. Chapter numbers may not be recorded on all discs.

Track (Video CD and audio CD only)

Sections of a picture or a musical piece on a video CD or an audio CD. Each track is assigned a track number, enabling you to locate the track you want.

Scene

On a video CD with PBC (Playback control) functions, moving pictures and still pictures are divided into sections called “Scenes”. Each scene is displayed in the menu screen and assigned a scene number, enabling you to locate the scene you want.
A scene is composed of one or several tracks.

Types of video CDs

There are two types of video CDs:

Video CDs equipped with PBC (Version 2.0)

PBC (Playback control) functions allow you to interact with the system via menus, search functions, or other typical computer-like operations. Moreover, still pictures of high resolution can be played if they are included in the disc.

Video CDs not equipped with PBC (Version 1.1)

Operated in the same way as audio CDs, these discs allow playback of video pictures as well as sound, but they are not equipped with PBC.

1-1. INTRODUCTION

Precautions

Handling the unit

When shipping the unit
The original shipping carton and packing materials come in handy. For maximum protection, re-pack the unit as it was originally packed at the factory.

When setting the unit
The picture and sound of a nearby TV, VCR, or radio may be distorted during playback. In this case, position the unit away from the TV, VCR, or radio, or turn off the unit after removing the disc.

To keep the exterior surfaces clean
Do not use volatile liquids, such as insecticide spray, near the unit. Do not leave rubber of plastic products in contact with the unit for a long period of time. They will leave marks on the surface.

Cleaning the unit

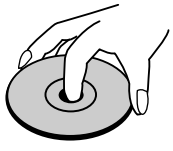
To clean the cabinet
Use a soft, dry cloth. If the surfaces are extremely dirty, use a soft cloth lightly moistened with a mild detergent solution. Do not use strong solvents, such as alcohol, benzine, or thinner, as these might damage the surface of the unit.

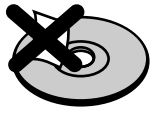
To obtain a clear picture
The DVD receiver is a high-tech, precision device. If the optical pick-up lens and disc drive parts are dirty or worn down, the picture quality will be poor.
Regular inspection and maintenance are recommended after every 1,000 hours of use. (This depends on the operating environment.)
For details, please contact your nearest dealer.

Notes on Discs

Handling discs

Do not touch the playback side of the disc.
Hold the disc by the edges so that fingerprints will not get on the surface.
Do not stick paper or tape on the disc.



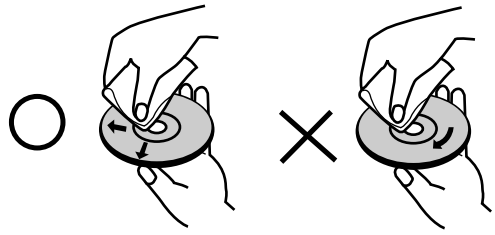


Storing discs

After playing, store the disc in its case.
Do not expose the disc to direct sunlight or sources of heat, or leave it in a parked car exposed to direct sunlight, as there may be a considerable temperature increase inside the car.

Cleaning discs

Fingerprints and dust on the disc can cause poor picture quality and sound distortion. Before playing, clean the disc with a clean cloth. Wipe the disc from the center out.



Do not use strong solvents such as alcohol, benzine, thinner, commercially available cleaners, or anti-static spray intended for older vinyl records.

About Symbols

About the ⃠ symbol display

" ⃠ " may appear on the TV screen during operation. This icon means the function explained in this owner's manual is not available on that specific DVD video disc.

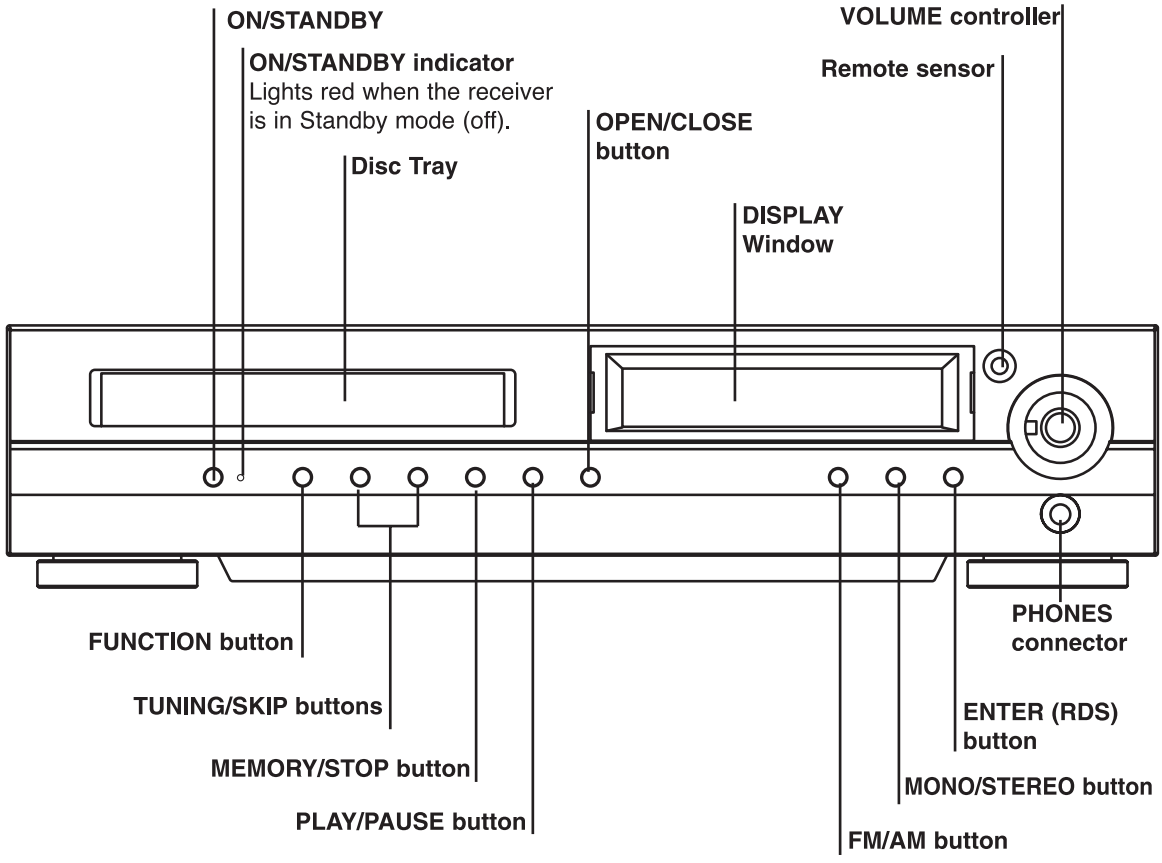
About the disc symbols for instructions

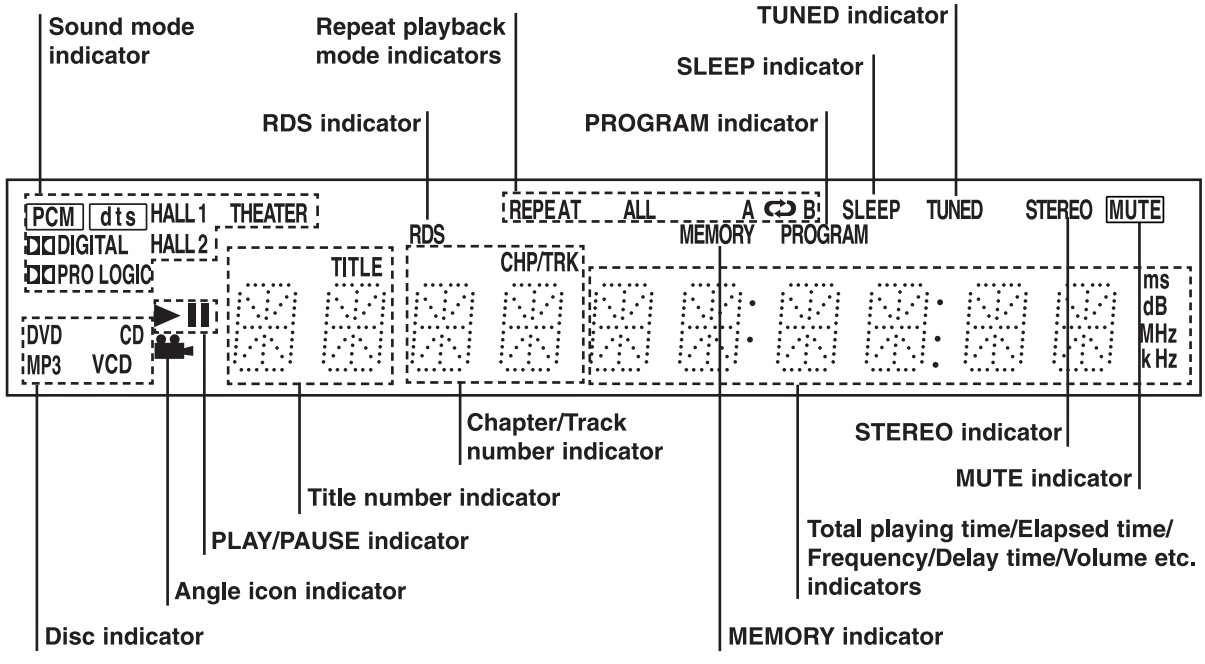
When a section in this manual includes the following icons, the data provided herein is applicable only to the software represented by that icon.

- DVD — DVD
- VCD2.0 — Video CDs with the PBC (playback control) function.
- VCD1.1 — Video CDs without the PBC (playback control) function.
- CD — Audio CDs.
- MP3 — MP3 disc.

1-1. INTRODUCTION

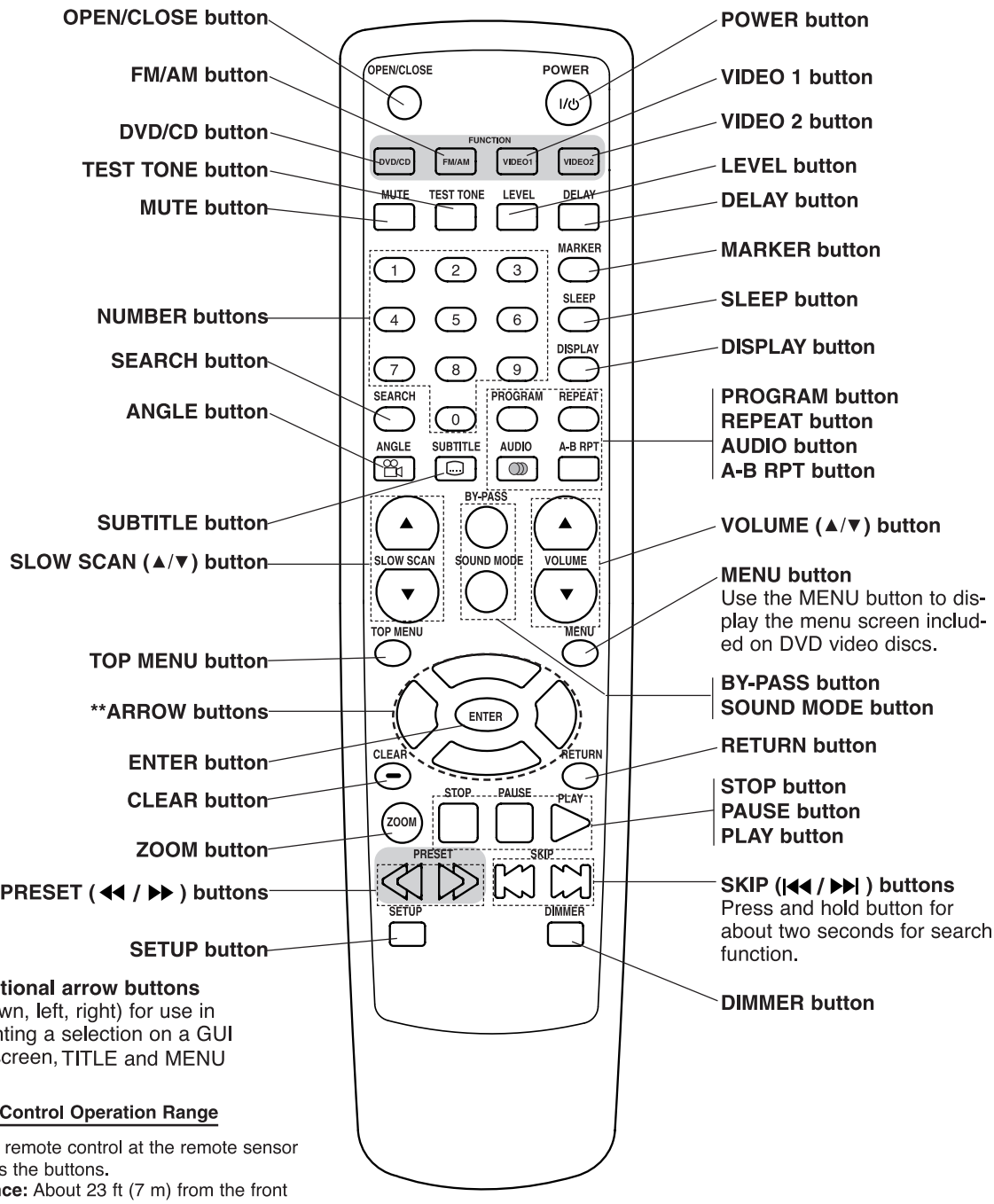
■ Front Panel and Display Window





1-1. INTRODUCTION

■ Remote Control



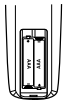
**** Directional arrow buttons**
(up, down, left, right) for use in highlighting a selection on a GUI menu screen, TITLE and MENU screen.

Remote Control Operation Range

Point the remote control at the remote sensor and press the buttons.

- **Distance:** About 23 ft (7 m) from the front of the remote sensor
- **Angle:** About 30° in each direction of the front of the remote sensor

Remote control battery installation



Detach the battery cover on the rear of the remote control, and insert two R03 (size AAA) batteries with ⊕ and ⊖ aligned correctly

⚠ Caution

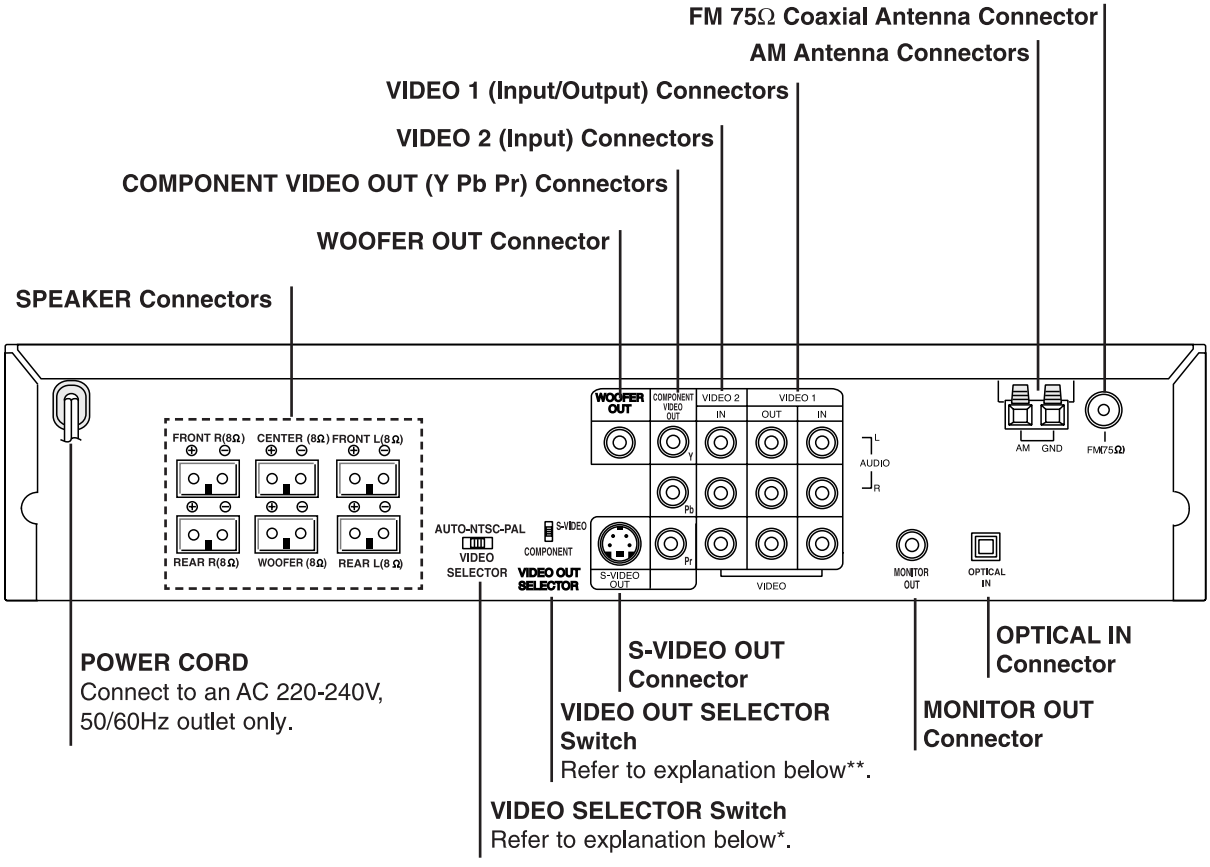
Do not mix old and new batteries. Never mix different types of batteries (standard, alkaline, etc.).

Notes

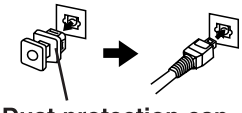
- Do not expose the remote sensor of the Receiver to a strong light source such as direct sunlight or illumination (especially high-frequency lighting) when using the remote control.
- When there is an obstacle between the Receiver and the transmitter, the remote control transmitter may not operate.
- When using the remote control, press the button at intervals of about 1 second to ensure the correct mode of operation.
- Do not throw the batteries into a fire. Dispose off used batteries in a designated disposal area.

1-1. INTRODUCTION

■ Rear Panel



Dust protection cap
Remove the dust protection cap from the OPTICAL IN jack and connect the optical digital cable (not supplied) securely so that the configurations of both the cable and the connector match. Keep the dust protection cap and always reattach the cap when not using the connector to protect against dust intrusion.



Dust protection cap

⚠ **Caution**
Do not touch the inner pins of the jacks on the rear panel. Electrostatic discharge may cause permanent damage to the unit.

⚠ **Caution**
When you select the function mode to VIDEO1 using the VIDEO1 button on the remote control, the sound signal is output from the front L/R speakers, but there will be no video signal output from the Video Out jack of VIDEO 1. Use the Monitor Out jack when connecting to TV.

*** VIDEO SELECTOR switch**
You can enjoy NTSC or PAL discs by setting the VIDEO SELECTOR switch to choose the appropriate system.

PAL: Select when DVD receiver is connected with PAL-TV.

NTSC: Select when DVD receiver is connected with NTSC-TV.

AUTO: Select when DVD receiver is connected with Multi system TV.

- When the selected System Select switch does not coincide with the system of your TV, normal color picture may not be displayed.
- Set System Select switch when the power is turned off.

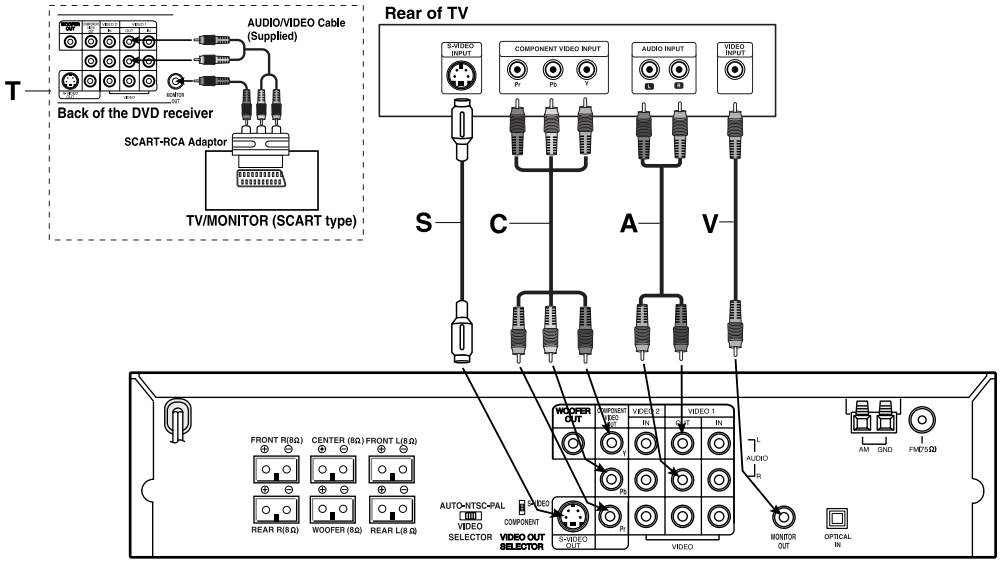
**** VIDEO OUT SELECTOR Switch**
Select either S-VIDEO OUT or COMPONENT VIDEO OUT, depending on how you connected the DVD Receiver to the TV.

1-2. PREPARATION

■ Connections

Connecting to a TV

Please turn off the Power of your TV, DVD receiver and other equipments before doing any connections.
Set the volume to low initially



- Make one of the following connections, depending on the capabilities of your existing equipment.
- When using the COMPONENT VIDEO OUT jacks, set the VIDEO OUT SELECTOR switch to COMPONENT. When using the S-VIDEO OUT jack, set the VIDEO OUT SELECTOR switch to S-VIDEO.

Tips

- Depending on your TV and other equipment you wish to connect, there are various ways you could connect the player. Use one of the connections described below.
- Please refer to the manuals of your TV, VCR, Stereo System or other devices as necessary to make the best connections.

Caution

– Make sure the DVD Receiver is connected directly to the TV. Select the correct AV input on your TV.
– Do not connect your DVD Receiver to TV via your VCR. The DVD image could be distorted by the copy protection system.

Video connection

1. Connect the MONITOR OUT jack on the DVD Receiver to the video in jack on the TV using the video cable supplied **(V)**.
2. Connect the Left and Right AUDIO OUT jacks of the DVD Receiver to the audio left/right in jacks on the TV **(A)** using the supplied audio cables.

S-Video connection

1. Connect the S-VIDEO OUT jack on the DVD Receiver to the S-Video in jack on the TV using the optional S-Video cable **(S)**.
2. Connect the Left and Right AUDIO OUT jacks of the DVD Receiver to the audio left/right in jacks on the TV **(A)** using the supplied audio cables.

Component Video (Color Stream®) connection

1. Connect the COMPONENT VIDEO OUT jacks on the DVD Receiver to the corresponding in jacks on the TV using an optional Y Pb Pr cable **(C)**.
2. Connect the Left and Right AUDIO OUT jacks of the DVD Receiver to the audio left/right in jacks on the TV **(A)** using the supplied audio cables.

Tip

If you want to connect the DVD receiver to a TV with SCAR socket, use the supplied SCAR-RCA adaptor **(T)**.

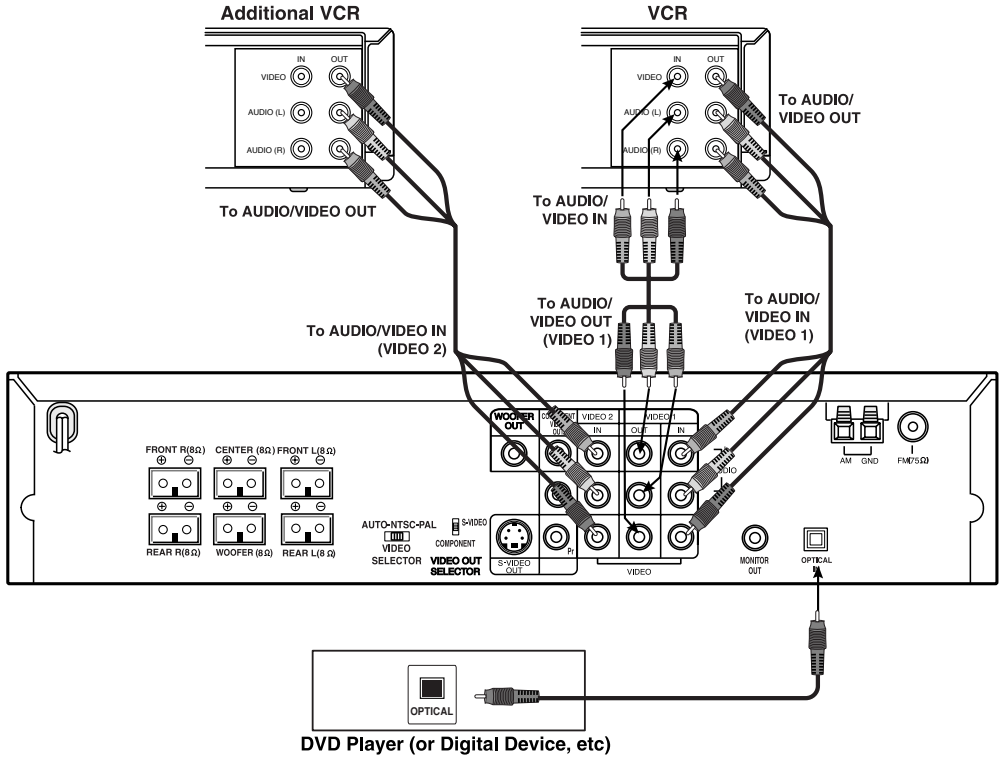
Note

- The signal of S-VIDEO OUT jack will output only when the function mode is selected to CD/DVD.

1-2. PREPARATION

Connecting to Optional Equipment

- Connect a TV(Monitor) to the MONITOR OUT or S-VIDEO OUT connector.
- Connect a VCR to the VIDEO 1 connectors.
- Connect a additional VCR to the VIDEO 2 connectors.
- Connect an optical output of DVD Player (or Digital Device etc) to the OPTICAL IN connector.



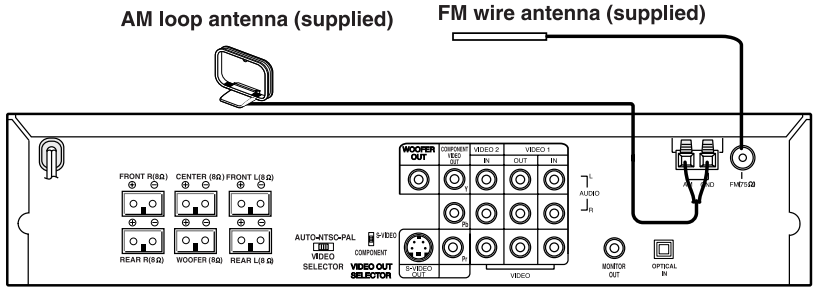
Notes

- When you select the function mode to VIDEO 1, a video signal is not output at the jack.
- If the audio format of the digital output does not match the capabilities of your receiver, the receiver will produce a strong, distorted sound or no sound at all.

Antenna Connections

Connect the supplied FM/AM antennas for listening to the radio.

- Connect the AM loop antenna to the AM antenna connector.
- Connector the FM wire antenna to the FM 75Ω coaxial connector.



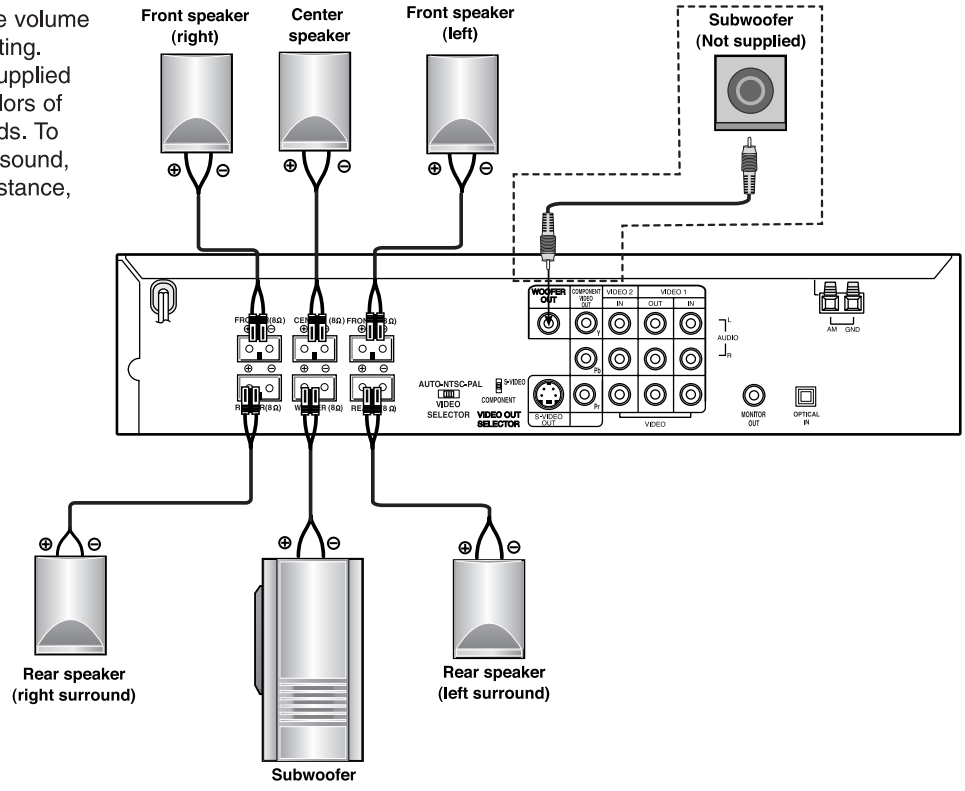
Notes

- To prevent noise pickup, keep the AM loop antenna away from the DVD Receiver and other component.
- Be sure to fully extend the FM wire antenna.
- After connecting the FM wire antenna, keep it as horizontal as possible.

1-2. PREPARATION

Speaker System Connection

Turn off the Power first and set the volume knob to low initially before connecting. Connect the speakers using the supplied speaker cords by matching the colors of the terminals and those of the cords. To obtain the best possible surround sound, adjust the speaker parameters (distance, level, etc.).



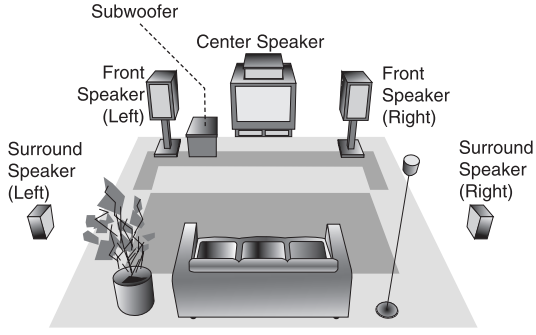
Notes

- Be sure to match the speaker cord to the appropriate terminal on the components: + to + and – to –. If the cords are reversed, the sound will be distorted and will lack base.
- If you use front speakers with low maximum input rating, adjust the volume carefully to avoid excessive output on the speakers.
- Do not disassemble the front cover of supplied speaker.

Speaker Position

In the case of normal position use the 6 speakers (2 front speakers, center speaker, 2 rear speakers and subwoofer). If you want to play the excellent bass sound, DTS digital surround or Dolby Digital surround, you should connect a subwoofer.

- **Front speakers**
  We recommend that the height of the tweeter of the front speakers and listener's ears are same height. And by hearing position set up the interval between speakers to 45 degree.
- **Center speaker**
  It is ideal that the center speakers and front speakers are same height. But in normally place it above or below the television.
- **Rear speakers**
  Place left and right behind the listening area. These speakers recreate sound motion and atmosphere. Required for surround playback. For best results, do not install the rear speakers too far behind the listening position and install them at or above the level of the listener's ears. It is also effective to direct the rear speakers towards a wall or ceiling to further disperse the sound.
  In case of the small sizes from the front to rear of the room, if the listener is near the rear wall set the rear speakers opposite each other, and set the rear speakers above 60 - 90 cm than the listener's ears, and set up it looks down.
- **Subwoofer**
  There is no fixed setting position. Place it at any appropriate position.



Speaker Positioning Example

1-2. PREPARATION

■ Before Operation

Delay

In Dolby Digital or Dolby Pro Logic mode it is assumed that the interval from the listener to each speakers is same. But if the interval from the center or rear left and right speakers to the listener is closer than the interval from the listener to the front left and right speaker, the sound of center or rear left and right speaker will reach first than the sound of the front speakers to the listener. In Dolby Digital and Dolby Pro Logic mode for improvement of this problem, by setting the delay time of the center or rear left and right speaker the sound from all speakers will arrive simultaneously to the listener.

Delay Time Setting

The interval from the speakers to the listener. If the distance from the listener to each speakers is same, in the Dolby Digital and Dolby Pro Logic mode the delay time of each speakers is as following.

In Dolby Digital mode

Center delay time : 0 ~ 5ms
Rear delay time: 0 ~ 15ms

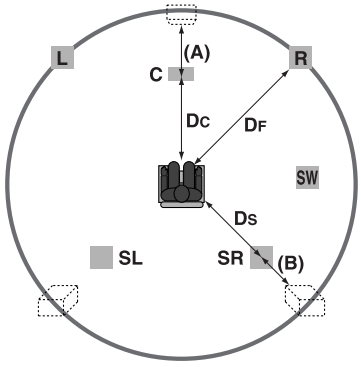
In Dolby Pro Logic mode

Center delay time : cannot setting
Rear delay time : 15-30ms

If the rear delay time is set in Dolby Digital mode, in the Dolby Pro Logic mode the delay time will be automatically set.
The delay time is 1 msec per 30 cm.
If the center and rear speakers are further than the front speakers from the listener, the delay time will be at minimum.

Surround delay time setting

If the distance of DS is equal to or longer than the DF in the left figure, set the Surround Delay Time as 0ms. Otherwise, change the setting according to the below.
Ex) If the distance from front speakers to the listener is 3 m and from rear speakers from the listener is 1.5 m, in the Dolby Digital mode the rear delay time is 5 msec.
3m (DF) - 1.5m (DS) = 1.5m (B)
1.5m (B) = 150cm / 30cm = 5msec



Center delay time setting

(Dolby Digital mode only)

If the distance of DF is equal to the distance of DC in the left figure, set the Center Delay Time as 0ms. Otherwise, change the setting according to the table below.
Ex) If the distance from the front speakers to the listener is 3m and from the center speaker to the listener is 2.4m, the center delay time is 2msec.
3m (DF) - 2.4m (DC) = 60cm (A)
60cm (A) / 30cm = 2msec

Setting the delay time in the Dolby Digital and Dolby Pro Logic mode

1 **Press DELAY.**
The current surround delay time is appeared in the display window.
You can select center delay time by pressing ◄/► in the Dolby Digital mode only.

2 **Press ▲/▼ to change the delay time.**

3 **If setting is complete, press DELAY.**

Notes

- You can adjust the center delay time only in the Dolby Digital mode and its delay time appears.
- Delay time setting is applicable to Dolby Digital and Dolby Pro Logic modes only.

Sound Adjustment

Test Tone

This function allows you can easily adjust the sound balance of the speakers from the listener's position.

1 **Select the test tone mode by pressing TEST TONE.**

- A hiss noise comes out for 2 seconds from each speakers in the following order;
  FL (Front Left) → C (Center) → FR (Front Right) ⊟→
  SR (Surround Right) → SL (Surround Left) ⊟→
  SW (Subwoofer) → FL (Front Left)

2 **You can adjust the sound level during operating the test tone, first press LEVEL then press ▲/▼ buttons, so that all speaker's sound level is same from the listener's position.**

- During operating the test tone, if you adjust the sound level, it will be paused in the current speaker channel.

3 **If setting is complete, press TEST TONE.**

Sound Mode

You can enjoy surround sound simply by selecting one of the pre-programmed sound fields according to the program you want to listen to.

Press SOUND MODE repeatedly until the sound mode you want appears in the display window as below.

dts

Allows you to enjoy 5.1(or 6) discrete channels of high quality digital audio from DTS program sources bearing the trademark such as discs, DVD and compact discs, etc. DTS Digital Surround delivers up to 6 channels of transparent audio(which means identical to the original masters) and results in exceptional clarity throughout a true 360 degree sound field. The term DTS is a trademark of DTS Technology, LLC. Manufactured under license from DTS Technology, LLC.

DIGITAL

The Dolby Digital surround format lets you enjoy up to 5.1 channels of digital surround sound from a Dolby Digital program source. If you play DVDs with " " mark, you can enjoy even better sound quality, greater spatial accuracy, and improved dynamic range.

HALL 1

When playing recordings of live music and classic, this mode provides a feeling similar to actually being in a small concert hall.

HALL 2

When playing recordings of live music and classic, this mode provides a feeling similar to actually being in a large concert hall.

THEATER

This mode provides a three dimensional effect similar to that of movie theater.

PRO LOGIC

Use this mode when playing movie or Dolby Digital 2 channel which carries the " " mark. This mode provides the effect of being in a movie theater or live concert house-an effect with an intensity which can only be obtained through DOLBY PRO LOGIC SURROUND. The effect of the front/back/left/right movement of the sound image, as well as the sense of fixed position in the sound image, is much clearer and more dynamic than before.

2CH STEREO

Outputs the sound from the front left and right speakers and subwoofer. Standard two channel (stereo) sources completely bypass the sound field processing. This allows you to play any source using only the front left and right speakers and subwoofer. **You can select 2CH STEREO by pressing BY-PASS on the remote control.**

When PCM indicator is only displayed in the display window:

Each time you press **SOUND MODE** button, the sound mode is changed as the following order;

PRO LOGIC → HALL1 → HALL2 → THEATER

Tip

You can select SURROUND OFF (2CH STEREO) mode by pressing BY PASS button.

When DVD is inserted.

You can change the sound mode of DVD (Dolby Digital, DTS, PRO LOGIC, etc) by pressing the **AUDIO** button on the remote during playback.
Although the DVD contents differ from disc to disc, the following explains the basic operation when this feature is used.

Each time you press **AUDIO** button, the sound mode of DVD is changed as the following order;

DIGITAL → dts → DIGITAL and PRO LOGIC

Tip

You can set PRO LOGIC mode to Off (2CH STEREO) by pressing BY PASS button and the PRO LOGIC indicator disappears.

For your reference

- **The DVD Receiver memorizes the last mode settings for each source individually.**
- **You can identify the encoding format of program software by looking at its packaging.**
  - Dolby Digital discs are labeled with the logo.
  - Dolby Surround encoded programs are labeled with the logo.
  - DTS Digital Surround discs are marked with DTS.

Notes

- When you play sound tracks with 96kHz sampling frequency, the output signals will be converted to 48kHz (sampling frequency).
- Sound Mode is not applicable when headphone is used.

Sound Level

You can set the sound level of the desired channel.

1 **Press LEVEL.**
The level indicator will appear in the display window.

2 **Press ◄/► to select a desired speaker to set.**
Each time you press the ◄/► button, it is changed as the following order;

FL (Front Left) → C (Center) → FR (Front Right) →
SR (Surround Right) → SL (Surround Left) →
SW (Subwoofer) → FL (Front Left)

- On the 2 channel stereo mode, you can only select the SW (Subwoofer).

3 **Press ▲/▼ to adjust the sound level of the selected channel. (-6dB ~ +6dB)**

4 **Repeat step 2-3 and adjust the sound level of the other channels.**

5 **If setting is complete, press LEVEL.**

1-2. PREPARATION

Press "DVD/CD" button on the remote control to select CD/DVD playback mode. Put a DVD disc on the tray and press OPEN/CLOSE.

General Explanation

This manual gives the basic instructions for operating the DVD Receiver. Some DVDs require specific operation or allow only limited operation during playback. When this occurs, the symbol ⃠ appears on the TV screen, indicating that the operation is not permitted by the DVD Receiver or is not available on the disc.

On-Screen Display

The general playback status can be displayed on the TV screen. Some items can be changed on the menu.

On-screen display operation

1 **Press DISPLAY during playback.**

2 **Press ▲ or ▼ to select an item.**
The selected item will be highlighted.

3 **Press ◄ or ► to change the setting of an item.**
The number buttons can be also be used for setting numbers (e.g., title number). For some functions, press ENTER to execute the setting.

Temporary Feedback Field Icons

Repeat Title

Repeat Chapter

Repeat Track (non-PBC Video CDs only)

Repeat All Tracks (non-PBC Video CDs only)

Repeat A-B

Repeat Off

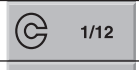
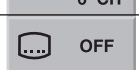
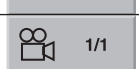
Resume play from this point

⃠ Action prohibited or not available

Notes

- Some discs may not provide all of the features on the on-screen display example shown below.
- If no button is pressed for 10 seconds, the on-screen display disappears.

DVD

Items		Function (Press ▲/▼ to select desired item)	Selection Method
Title Number		**Displays the current title number and total number of available titles, and** skips to a desired title number.	◄/►, or Numbers, ENTER
Chapter Number		**Displays the current chapter number and total number of available chapters, and** skips to a desired chapter number.	◄/►, or Numbers, ENTER
Time search		**Displays the elapsed playing time, and** searches a point identified by its elapsed time.	Numbers, ENTER
Audio language and Digital Audio Output mode		**Displays the current audio soundtrack language, encoding method and channel number, and** any changes you make to the setting.	◄/►
Subtitle language		**Displays the current subtitles language, and** any changes you make to the setting.	◄/►
Angle		**Displays the current angle number and total number of angles, and** any changes you make to the angle number.	◄/►

VCD2.0 **VCD1.1**

Items		Function (Press ▲/▼ to select desired item)	Selection Method
Track Number		**Displays the current track number, total number of tracks and PBC On mode, and** skips to the desired track number.	◄/►,or Numbers, ENTER
Time		**Displays the elapsed playing time (Display only)**	–
Audio Channel		**Displays the audio channel, and** changes you make to the audio channel.	◄/►

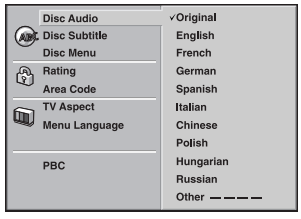
1-2. PREPARATION

Initial Settings

You can set your own Personal Preferences on the player.

Initial Settings General Operation

1 **Press SETUP.**
The setup menu appears.



2 **Press ▲/▼ to select the desired item.**
The screen will show the current setting for the selected item, as well as alternate setting(s).

3 **While the desired item is selected, press ►, then ▲/▼ to select the desired setting.**

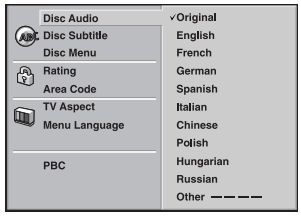
4 **Press ENTER to confirm your selection.**
Some items require additional steps.

5 **Press SETUP, RETURN or PLAY to exit the setup menu.**

Language

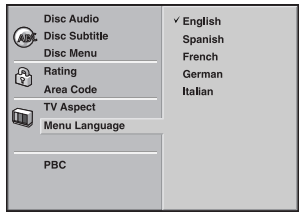
Disc Language DVD

Select a language for the disc's Menu, Audio and Subtitle.
Original : The original language set for the disc is selected.
Other : To select another language, press number buttons to enter the corresponding 4-digit number according to the language code list on page 27. If you enter the wrong language code, press CLEAR.



Menu Language

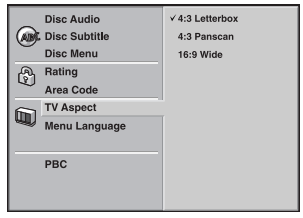
Select a language for the setup menu. This is the menu you see when you press SETUP.



Picture

TV Aspect DVD

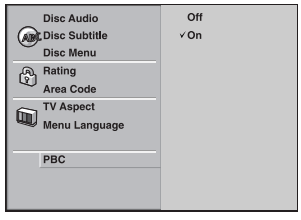
4:3 Letterbox: Select when a standard 4:3 TV is connected. Displays theatrical images with masking bars above and below the picture.
4:3 Panscan: Select when a standard 4:3 TV is connected. Displays pictures cropped to fill your TV screen. Either sides of the picture are cut off.
16:9 Wide: Select when a 16:9 wide TV is connected.



PBC VCD2.0

PBC On/Off
Set Playback Control (PBC) to On or Off

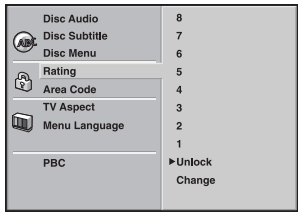
On: Video CDs with PBC are played back according to the PBC.
Off: Video CDs with PBC are played back in the same way Audio CDs.



Parental Control

Rating DVD

Movies on DVDs may contain scenes not suitable for children. Therefore, discs may contain Parental Control information that applies to the complete disc or to certain scenes on the disc. These scenes are rated from 1 to 8, and alternatively, more suitable scenes are available for selection on some discs. Ratings are country dependent. The Parental Control feature allows you to prevent discs from being played by your children or to have certain discs played with alternative scenes.



1 **Select "Rating" on the Setup menu using the ▲ and ▼ buttons.**

2 **While "Rating" is selected, press ►.**

3 **When you have not entered a password yet;**
Enter a 4-digit password using the numerical buttons to create a personal 4-digit security password, then press ENTER. And enter the 4-digit password again and press ENTER to verify.
When you have already entered a password;
Enter a 4-digit password using the numerical buttons to confirm the personal 4-digit security password, then press ENTER.

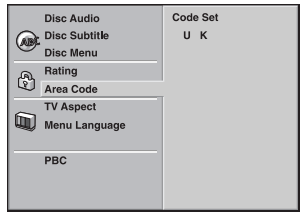
If you make a mistake before pressing ENTER, press CLEAR and enter 4-digit security password again.

4 **Select a rating from 1 to 8 using the ▲/▼ buttons. One (1): DVD software for adults cannot be played back. Eight (8): All DVD software can be played back. The limitations is more severe as the level number is lower.**
Unlock: If you select Unlock, Parental Control is not active. The disc will play in full.
Ratings 1 to 8: Some discs contain scenes not suitable for children. If you set a rating for the player, all disc scenes with the same rating or lower will be played. Higher rated scenes will not be played unless an alternative scene is available on the disc. The alternative must have the same rating or a lower one. If no suitable alternative is found, playback will stop. You must enter the 4-digit password or change the rating level in order to play the disc.

5 **Press ENTER to confirm your rating selection, then press SETUP to exit the menu.**

Area Code DVD

Enter the code of a area whose standards were used to rate the DVD video disc, referring to the list (See "Area Code List", page 28.).



1 **Select Area Code using the ▲ / ▼ buttons on the setup menu.**

2 **While Area Code is selected, press ►.**

3 **Follow step 3 of "Rating" on left.**

4 **Select the first character using the ▲/▼ buttons.**

5 **Shift the cursor using ◄/► buttons and select the second character using ▲/▼ buttons.**

6 **Press ENTER to confirm your country code selection, then press SETUP to exit the menu.**

Note
Confirmation of the 4-digit password is necessary when the code is changed (see "Changing the 4-digit code" below).

Changing the 4-digit code

1 Follow steps 1-2 as shown above to the left (Rating).
2 Enter the old code, then press ENTER.
3 Select Change using the ▲/▼ buttons then press ENTER.
4 Enter the new 4-digit code, then press ENTER.
5 Enter exactly the same code a second time and verify by pressing ENTER.
6 Press SETUP to exit the menu.

If you forget your 4-digit code

If you forget your password, to clear the current password, follow the procedure below.

1 Press SETUP to display the setup menu.
Move the cursor down to "Rating".
2 Use the Number buttons to enter "210499."
The cursor will move up to "Disc Audio" automatically.
The 4-digit password is cleared.
3 Enter a new code as shown above to the left (Rating).

1-3. OPERATION

■ Operation with DVD and Video CD

Playing a DVD and Video CD

Getting to play DVD VCD2.0 VCD1.1

- Turn on the TV and select the video input source connected to the DVD receiver.
- When you want to enjoy the sound of discs or from the audio system, turn on the audio system and select the input source connected to the DVD receiver.

1 **Press OPEN/CLOSE to open the disc tray.**

2 **Load your chosen disc in the tray, with the label facing up.**
When a double-sided DVD is inserted, make sure the side you want to play is facing up.

3 **Press OPEN/CLOSE to close the tray.**
READING appears on the TV screen, and playback starts automatically. If playback does not start, press PLAY.
In some cases, the disc menu might appear instead.

When the menu screen is displayed

The menu screen may be displayed first after loading a DVD or Video CD which contains a menu.

DVD

Use the ◄ ► ▲ ▼ buttons to select the title/chapter you want to view, then press ENTER to start playback.
Press TOP MENU or MENU to return to the menu screen.

VCD2.0

- Use the number buttons to select the track you want to view.
  Press RETURN to return to the menu screen.
- Menu setting and the exact operating procedures for using the menu may differ depending on the disc. Follow the instructions on the each menu screen. You also may set PBC to Off under setup. See page 16.

Notes

– If Parental Control is set and the disc is not within the Rating settings (not authorized), the 4-digit code must be entered and/or the disc must be authorized (see "Parental Control", on page 17).
– DVDs may have a region code.
– Your player will not play discs that have a region code different from your player. The region code for this player is 2 (two).

General Features

Note

Unless stated, all operations described are based on remote control use. Some operations can be carried out using the setup menu.

Moving to another TITLE DVD

When a disc has more than one title, you can move to another title as follows:

- Press DISPLAY when playback is stopped, then press the appropriate numerical button (0-9) to select a title number.

Moving to another CHAPTER/TRACK

DVD VCD1.1

When a title on a disc has more than one chapter or a disc has more than one track, you can move to another chapter/track as follows:

- Press SKIP ⏮ or ⏭ briefly during playback to select the next chapter/track or to return to the beginning of the current chapter/track.
- Press SKIP ⏮ twice in quick successions to step back to the previous chapter/track.
- To go directly to any chapter during DVD playback, press DISPLAY. Then, press ▲/▼ to select C (chapter) (or for a Video CD, select T for track). Then, enter the chapter/track number using the numerical buttons (0-9).

Note

For two-digit numbers, press the buttons in rapid succession.

Slow Motion DVD VCD2.0 VCD1.1

1 Press SLOW SCAN ▲ or ▼ during playback.
The player will enter SLOW mode.
2 Use the SLOW SCAN ▲ or ▼ to select the required speed: ◄❙ 1/16, ◄❙ 1/8, ◄❙ 1/4 or ◄❙ 1/2 (backward), or ❙► 1/16, ❙► 1/8, ❙► 1/4 or ❙► 1/2 (forward).
3 To exit slow motion mode, press PLAY.

Note

Slow motion playback in reverse is not applicable for Video CD.

General Features (cont'd)

Still Picture and Frame-by-frame playback

DVD VCD2.0 VCD1.1

1 Press PAUSE during playback.
The player will now go into PAUSE mode.
2 You can advance the picture frame by frame by pressing PAUSE repeatedly on the remote control.

Search DVD VCD2.0 VCD1.1

1 Press and hold SKIP ⏮ or ⏭ for about two seconds during playback until "PLAY x2" appears on the top right corner of your TV screen.
The player will now go into SEARCH mode.
2 Repeat Step 1 to select the required speed: ◀◀ X2, ◀◀ X4, ◀◀ X16, ◀◀ X100 (backward) or ▶▶ X2, ▶▶ X4, ▶▶ X16, ▶▶ X100 (forward).
With a Video CD, the Search speed changes: ◀◀ X2, ◀◀ X4, ◀◀ X8 (backward) or ▶▶ X2, ▶▶ X4, ▶▶ X8 (forward).
3 To exit SEARCH mode, press PLAY.

Repeat DVD VCD2.0 VCD1.1

DVD Video Discs - Repeat Chapter/Title/Off

1 To repeat the currently playing chapter, press REPEAT.
The Repeat Chapter icon appears on the TV screen.
2 To repeat the title currently playing, press REPEAT a second time.
The Repeat Title icon appears on the TV screen.
3 To exit Repeat mode, press REPEAT a third time.
The Repeat Off icon appears on the TV screen.

Video CDs - Repeat Track/All/Off

1 To repeat the track currently playing, press REPEAT.
The Repeat Track icon appears on the TV screen.
2 To repeat the disc currently playing, press REPEAT a second time.
The Repeat All icon appears on the TV screen.
3 To exit Repeat mode, press REPEAT a third time.
The Repeat Off icon appears on the TV screen.

Note
On a Video CD with PBC, you must set PBC to Off on the setup menu to use the Repeat function. See page 16.

Repeat A-B DVD VCD2.0 VCD1.1

To repeat a sequence in a title:

1 Press REPEAT A-B at your chosen starting point.
A- appears briefly on the TV screen.
2 Press REPEAT A-B again at your chosen end point.
A-B appears briefly on the TV screen, and the repeat sequence begins (a-b repeat appears on the player's display).
3 To cancel the sequence, press REPEAT A-B.

Time Search DVD

The Time Search function allows you to start playing at any chosen time on the disc.

1 Press DISPLAY during playback. The on-screen display appears on the screen.
The Time Search box shows the elapsed playing time of the current disc.
2 Within 10 seconds, press ▲/▼ to select the Time Search icon in the on-screen display.
The "-:--:--" appears in the Time Search box.
3 Within 10 seconds, use the numerical buttons to enter the required start time. Enter hours, minutes and seconds from left to right in the box.
If you enter the wrong numbers, press CLEAR to remove the numbers you entered. Then enter the correct numbers.
4 Within 10 seconds, press ENTER to confirm the start time.
Playback starts from the selected time on the disc. If you enter an invalid time, playback will continue from the current point.

General Features (cont'd)

Zoom DVD VCD2.0 VCD1.1

The Zoom function allows you to enlarge the video image and to move through the enlarged image.

1 Press ZOOM during playback or still playback to activate the Zoom function.
If you press ZOOM repeatedly, the magnification level increases up to six times.

2 Use the ◄ ► ▲ ▼ buttons to move through the zoomed picture.

3 Press CLEAR to resume normal playback or return to the paused image.

Note

- The zoom function may not work for some DVDs.
- The zoom function may not work on multi-angle scenes.

Marker Search DVD VCD2.0 VCD1.1

You can start playback from a memorized point. Up to nine points can be memorized.
To enter a mark, follow these steps.

1 During disc playback, press MARKER when playback reaches the spot that you want to memorize.
The Marker icon will appear on the TV screen briefly.

2 Repeat step 1 to enter up to nine Marker points on a disc.

To Recall a Marked Scene

1 During disc playback, press SEARCH.
The MARKER SEARCH menu will appear on the screen.

2 Within 10 seconds, press NUMBER buttons to select a Marker number that you want to recall.

3 Press ENTER.
Playback will start from the Marked scene.

4 To remove the MARKER SEARCH menu, press SEARCH.

To clear a Marked Scene

1 During disc playback, press SEARCH.
The MARKER SEARCH menu will appear on the screen.

2 Press ◄/► to select the Marker number that you want to erase.

3 Press CLEAR.
The Marker number will be erased from the list.

4 Repeat steps 2 and 3 to erase additional Marker numbers.

5 To remove the MARKER SEARCH menu, press SEARCH.

Special DVD Features DVD

Checking the contents of DVD Video discs: Menus

DVDs may contain menus that allow you to access special features. To use the disc menu, press MENU. Then, press the appropriate numerical button to select an item. Or, use the ◄ ► ▲ ▼ buttons to highlight your selection, then press ENTER.

Top Menu DVD

1 Press TOP MENU.
If the current title has a menu, the menu will appear on the screen. Otherwise, the disc menu may appear.

2 The menu can list camera angles, spoken language and subtitle options, and chapters for the title.

3 To remove the title menu, press TOP MENU again.

Disc Menu DVD

1 Press MENU.
The disc menu is displayed.

2 To remove the disc menu, press MENU again.

Camera Angle DVD

If the disc contains sequences recorded from different camera angles, the angle icon blinks on the display. You can then change the camera angle if you wish.

- Press ANGLE repeatedly during playback to select a desired angle.
The number of the current angle appears on the display.

Changing the Audio Language

VCD2.0 VCD1.1

Press AUDIO repeatedly during playback to hear a different audio channel (STEREO, LEFT or RIGHT).

Subtitles DVD

Press S-TITLE repeatedly during playback to see the different subtitle languages.

Note

If ⃠ appears, the feature is not available on the disc.

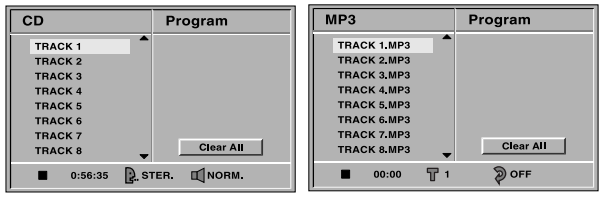
1-3. OPERATION

■ Operation with Audio CD and MP3 Disc

Playing an Audio CD and MP3 disc

The DVD Receiver can play MP3 format recordings on CD-ROM, CD-R or CD-RW discs.
Before playing MP3 recordings, read the notes of MP3 Recordings on page 25.

1 **Insert a disc and close the tray.**
The menu appears on the TV screen.



Audio CD menu **MP3 menu**

2 **Press ▲/▼ to select a track then press PLAY.**
Playback starts.
During playback, the current track's elapsed playing time will appear on the display.
Playback will stop at the end of the disc.

3 **To stop playback at any other time, press STOP.**

Pause CD MP3

1 Press PAUSE during playback.

2 To return to playback, press PLAY or press PAUSE again.

Moving to another Track CD MP3

- Press SKIP ⏮ or ⏭ briefly during playback to go to the next track or to return to the beginning of the current track.
- Press SKIP ⏮ twice in quick successions to step back to the previous chapter/track.
- In case of audio CD, to go directly to any track, enter the track number using the numerical buttons (0-9) during playback.

Repeat Track/All/Off CD MP3

1 To repeat the track currently playing, press REPEAT.
The Repeat Track icon appears on the menu screen.

2 To repeat all tracks of disc in the unit, press REPEAT a second time.
The Repeat All icon appears on the menu screen.

3 To exit Repeat mode, press REPEAT a third time.
The Repeat Off icon appears on the menu screen.

Search CD

1 Press and hold SKIP ⏮ or ⏭ for about two seconds during playback until "►" changes to "►► X2" on the lower left corner of the OSD.
The player will now go into SEARCH mode.

2 Repeat Step 1 repeatedly to select the required speed: ◄◄ X2, ◄◄ X4, ◄◄ X8 (backward) or ►► X2, ►► X4, ►► X8 (forward).

3 Search speed and direction are indicated on the menu screen.

4 To exit SEARCH mode, press PLAY.

Repeat A-B CD

To repeat a sequence.

1 During disc playback, press REPEAT A-B at your chosen starting point.
The Repeat icon and "A -" appears on the menu screen.

2 Press REPEAT A-B again at your chosen end point.
The Repeat icon and "A B" appears on the menu screen, and the sequence begins to play repeatedly.

3 To exit the sequence and return to normal play, press REPEAT A-B again.
The Repeat icon and "OFF" appears on the menu screen.

Changing the Audio Channel CD

Press AUDIO repeatedly during playback to hear a different audio channel (STEREO, LEFT or RIGHT).

■ Programmed Playback CD MP3 VCD2.0 VCD1.1

Programmed Playback with Audio CD and MP3 Disc

Program allows you to store your favourite tracks for a particular disc in the player memory.

Program can contain 32 tracks (Audio CD) or 60 tracks (MP3 disc).

1 Insert the disc and close the tray.
The menu is displayed on the TV screen.

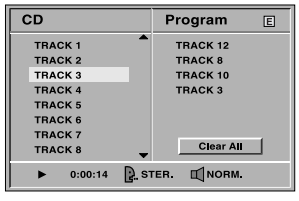
2 Press PROGRAM during playback or in the stop mode to enter the Program Edit mode.
The E mark will appear to the right of the word Program on the right side of the menu screen.

Note
Press RETURN or PROGRAM to exit the Program Edit mode; the E mark will disappear.

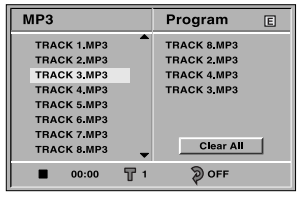
3 Press ▲/▼ to select a track then press ENTER to place the selected track on the Program list.

4 Repeat step 3 to place additional tracks on the Program list.

Audio CD menu



MP3 menu



5 Press ►.
The programmed track you selected last is highlighted on the program list.

6 Press ▲/▼ to select the track you want to start playing.
Press TOP MENU to move to the next page.
Press MENU to move to the previous page.

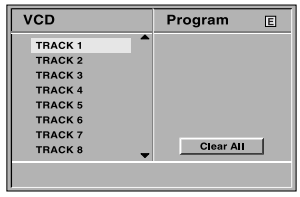
7 Press PLAY to start.
Playback begins in the order in which you programmed the tracks and "PROGRAM" appears on the menu screen. Playback stops after all of the tracks on the Program list have played once.

Programmed Playback with Video CD

Note
On a Video CD with PBC, you must set PBC to Off on the setup menu to use the Program function. See page 16.

1 Insert Video CD and close the tray.

2 Press PROGRAM while playback is stopped.
The VCD Program menu will appear.



Note
Press RETURN or PROGRAM to exit the Program menu.

3 Follow steps 3-7 of "Programmed Playback with Audio CD and MP3 Disc" on left.

Repeat Programmed Tracks

- To repeat the track currently playing, press REPEAT.
  The Repeat Track icon appears on the menu screen.
- To repeat all tracks of program list, press REPEAT a second time.
  The Repeat All icon appears on the menu screen.
- To exit Repeat mode, press REPEAT a third time.
  The Repeat Off icon appears on the menu screen.

Erasing a Track from Program List

1 Press PROGRAM during playback or in the stop mode to enter the Program Edit mode.
The E mark will appear.
2 Press ► to move to the Program list.
3 Use ▲/▼ to select the track that you wish to erase from the Program list.
4 Press CLEAR.
The track will be erased from the Program list.

Erasing the Complete Program List

1 Follow steps 1-2 of "Erasing a Track from Program List" as above.
2 Use ▲/▼ to select "Clear All", then press ENTER.
The complete Program for the disc will be erased.
The programs are also cleared when the disc is removed.

To resume normal playback from programmed playback

Press and hold PROGRAM for 3 seconds until "PROGRAM" indicator disappears in the display window.

1-3. OPERATION

■ Operation with Radio

Presetting the radio stations

You can preset 30 stations for FM and AM. Before tuning, make sure that you have tuned down the volume.

1 Press FUNCTION on the front panel repeatedly or FM/AM on the remote control until the FM or AM appears in the display window.

2 And then every time you press FM/AM, FM and AM changes alternately.

3 Press and hold TUNING/SKIP ⏮ ◀◀ or ▶▶ ⏭ on the front panel for about two seconds until the frequency indication starts to change, then release.
Scanning stops when the DVD Receiver tunes in a station. “TUNED” and “STEREO” (for stereo program) appear in the display window.

Note
“TUNED” only appears when the signal is FM and STEREO.

4 Press MEMORY.
A preset number will flash in the display window.

5 Press TUNING/SKIP ⏮ ◀◀ or ▶▶ ⏭ on the front panel to select the preset number you want.

6 Press MEMORY again.
The station is stored.

7 Repeat steps 3 to 6 to store other stations.

To tune in a station with a weak signal

Press TUNING/SKIP ⏮ ◀◀ or ▶▶ ⏭ repeatedly in step 3 to tune in the station manually.

To clear all the memorized stations

Press and hold MEMORY for about three seconds and “CLEAR ALL” is appeared in the display window and then press MEMORY again, the stations are cleared.

- If you have accidentally entered into the "CLEAR ALL" mode and you do not wish to clear the memory, do not press any key. After a few seconds, the "CLEAR ALL" display will go off by itself and change to normal mode.

Note
If all stations have already been entered, FULL message will appear in the display window for a moment and then a preset number will flash. To change the preset number, follow the steps 5-6 as above.

Listening to the radio

Preset radio stations in the DVD receiver’s memory first (see “Presetting radio stations” on the left side).

1 Press FM/AM until AM or FM appears in the display window.
The last received station is tuned in.

2 Press PRESET ◀◀ / ▶▶ repeatedly to select the preset station you want.
Each time you press the button, the DVD receiver tunes in one preset station at a time.

3 Adjust the volume by rotating VOLUME on the front panel or by pressing VOLUME + or - on the remote control repeatedly.

To turn off the radio

Press POWER to turn the DVD receiver off or select another function mode (DVD/CD, VIDEO 1 or VIDEO 2).

To listen to non-preset radio stations

- Use manual or automatic tuning in step 2.
- For manual tuning, press TUNING/SKIP ⏮ ◀◀ or ▶▶ ⏭ on the front panel repeatedly.
- For automatic tuning, press and hold TUNING/SKIP ⏮ ◀◀ or ▶▶ ⏭ for about two seconds on the front panel.

To select a preset radio station directly

You can use the number buttons on the remote control to select a preset radio station directly.
For example, to listen preset station 4, press 4 on the remote control. To listen preset station 19, press 1 then 9 (within 3 seconds).

For your reference

- **If an FM program is noisy**
  Press MONO/ST. on the front panel so that “STEREO” disappears in the display window. There will be no stereo effect, but the reception will improve. Press the button again to restore the stereo effect.
- **To improve reception**
  Reorient the supplied antennas.

Reception of RDS (Radio Data System) Stations

RDS (Radio Data System) is a system gradually being introduced on FM in many countries, where by an inaudible stream of data is transmitted in addition to the normal radio signal. This data contains various information including station/ transmitter identification, traffic information and a list of alternative frequencies for the radio station being received.

1 **Press FUNCTION to select FM or AM and then press FM/AM to select FM.**

2 **Select a desired station by pressing the PRESET ◀◀ or ▶▶ .**
When the RDS transmission is received, the display shows the program
service name (PS) after RDS indicator appears.

Note
- RDS is only available for FM reception.
- The PS (PROGRAM SERVICE) NAME is displayed automatically when a RDS station is received.

■ Additional Information

Sleep Timer Settings

You can set the DVD receiver to turn off automatically at a specified time.

1 **Press SLEEP to set the desired sleep time.**
The SLEEP indicator and sleep time appears in the display window.

2 **Each time you press SLEEP, the setting changes in the following order.**
SLEEP 120 →90 →60 →50 →40 →30 →20 →10 →OFF

Notes
- **You can check the time remaining before the DVD receiver turns off.**
  Press SLEEP. The remaining time appears in the display window.

Dimmer

This function will change the brightness of the FIP display on the front panel during Power-on status.
Press the DIMMER repeatedly.

Mute

Press MUTE to mute your unit.
You can mute your unit in order, for example, to answer the telephone, “MUTE” indicator flashes in the display window.

Using Headphone Jack

Connect a stereo headphone plug (∅3.5mm) into the **PHONES connector**.
The speakers are automatically disconnected when you plug in the headphones (not supplied).

Note
When you use the headphones, keep the volume at a moderate level. If you use the headphones continuously with high volume sound, it may cause hearing damage.

Selecting input source

You can use VCRs or other units connected to the VIDEO1 or VIDEO2 connectors .
Refer to the owner’s manual supplied with the unit for farther information on the operation.
Press VIDEO1 or VIDEO2 repeatedly on the remote control to select the desired input source.
Each time you press this button, the mode of the function changes in the following sequence:

- **VIDEO1 :** Each time VIDEO1 is pressed, the input source toggles between VIDEO1 ANALOG and VIDEO1 DIGITAL. (a) Select VIDEO1 ANA if sound input is connected to RCA jacks of VIDEO1.(b) Select VIDEO1 DIG if sound input is connected to OPTICAL IN connector. Please note that there is no sound when VIDEO1 DIG is selected and there is no connection to OPTICAL IN.
- **VIDEO2 :** Similarly, select each time VIDEO2 is pressed, the input source toggles between VIDEO2 ANA or VIDEO DIG. Select VIDEO2 ANA if the audio input is connected by RCA jacks.

Note
- The Optical input function is available only when the other unit’s Sampling Frequency is 32 ~ 48kHz.

Last Condition Memory

DVD CD VCD1.1

This player memorizes the last condition for the last disc you have watched. Settings remain in memory even if you remove the disc from the player or switch off the player. If you load a disc that has its settings memorized, the latest stop position is automatically recalled.

Notes

– Settings are stored in memory for use any time.
– This player does not memorize settings of a disc if you switch off the player before commencing to play it.

Screen Saver

The screen saver picture appears when you leave the DVD Receiver in stop mode for about five minutes.

Video Mode Setting DVD VCD2.0 VCD1.1

- With certain discs, the playback picture may be flickering or Dot Crawl is shown on straight lines. That means Vertical interpolation or De-interlace is not perfectly matched with the disc. In this case, the picture quality may be improved by changing the video mode.
- To change the video mode, press and hold DISPLAY about 3 seconds during disc playback. The new video mode number selected is displayed on the TV screen. Check whether the video quality has improved. If not, repeat the above procedure until picture quality is improved.
- Video mode sequence:
  Video1 → Video2 → Film → Adapt → Auto.
- If you turn off the power, the video mode will return to initial default state (Auto).

Detailed Description of each Video Mode

Auto : The source material of the DVD video (film material or video material) is determined from disc information.

Video1: Suitable for playing video based content with comparatively little motion.

Video2: Suitable for playing video based content with comparatively more motion.

Film: Suitable for playing film based content or video based material recorded by the progressive scan method.

Adapt: Determines the appropriate mode (film or video) during disc playback, and automatically selects the proper mode. Suitable for playing a disc comprised of film and video based content.

Notes on MP3 Discs

About MP3

- An MP3 file is audio data compressed by using MPEG1, the audio layer-3 file-coding scheme. We call files that have the ".mp3" file extension "MP3 files".
- The player can not read an MP3 file that has a file extension other than ".mp3".
- The player can not read a fake MP3 file that has a file extension ".mp3".

MP3 disc compatible with this player is limited as follows:

1. Sampling Frequency / only at 44.1kHz
2. Bit rate / within 96-192kbps
3. CD-R physical format should be "ISO 9660"
4. If you record MP3 files using the software which cannot create a FILE SYSTEM, for example "Direct-CD" etc., it is impossible to playback MP3 files. We therefore recommend that you use "Easy-CD Creator", which creates an ISO9660 file system.
5. A single session disc requires MP3 files in the first track. If there is no MP3 file in the 1st track, it cannot playback MP3 files. If you wish to playback MP3 files, format all the data in the disc or use a new one.
6. We do not recommend using CD-RW discs. Please use finished CD-R discs only.
7. File names should be named using 8 letters or less and must incorporate ".mp3" extension
   e.g. "********.MP3".
8. Do not use special letters such as "_?!><+*}{`[@];:\/.," etc.
9. Total number of files on the disc should be less than 200.
10. Use 74 minute CD-R discs (650M), Do not use 80 minute CD-R (700M) software

This DVD receiver requires discs/recordings to meet certain technical standards in order to achieve optimal playback quality. Pre-recorded DVDs are automatically set to these standards. There are many different types of recordable disc formats (including CD-R containing MP3 files).

Customers should also note that permission is required in order to download MP3 files and music from the Internet. TOSHIBA cannot grant such permission. Permission should always be sought from the copyright owner.

1-4. REFERENCE

■ Troubleshooting

Check the following guide for the possible cause of a problem before contacting service.

Symptom	Cause	Correction
No power.	• The power cord is disconnected.	• Plug the power cord into the wall outlet securely.
The power is on, but the DVD receiver does not work.	• No disc is inserted.	• Insert a disc. (Check that the DVD or, audio CD indicator in the display window is lit.)
No picture.	• The TV is not set to receive DVD signal output.	• Select the appropriate video input mode on the TV so the picture from the DVD receiver appears on the TV screen.
	• The video cable is not connected securely.	• Connect the video cable into the jacks securely.
	• The connected TV power is turned off.	• Turn on the TV.
No sound.	• The equipment connected with the audio cable is not set to receive DVD signal output.	• Select the correct input mode of the audio receiver so you can listen to the sound from the DVD receiver.
	The audio cables are not connected securely.	Connect the audio cable into the jacks securely.
	• The power of the equipment connected with the audio cable is turned off.	• Turn on the equipment connected with the audio cable.
	• The Digital Audio Output is set to the wrong position.	• Set the Digital Audio Output to the correct position, then turn on the DVD receiver again by pressing POWER.
The playback picture is poor.	• The disc is dirty.	• Clean the disc.
The DVD receiver does not start playback.	• No disc is inserted.	• Insert a disc. (Check that the DVD, or audio CD indicator in the DVD display is lit.)
	• An unplayable disc is inserted.	• Insert a playable disc. (Check the disc type, color system and Regional code.)
	• The disc is placed upside down.	• Place the disc with the playback side down.
	• The disc is not placed within the guide.	• Place the disc on the disc tray correctly inside the guide.
	• The disc is dirty.	• Clean the disc.
	• The Rating level is set.	• Cancel the Rating function or change the rating level.
The remote control does not work properly.	• The remote control is not pointed at the remote sensor of the DVD receiver.	• Point the remote control at the remote sensor of the DVD receiver.
	• The remote control is too far from the DVD receiver.	• Operate the remote control within about 23 ft (7 m).
	• There is an obstacle in the path of the remote control and the DVD receiver.	• Remove the obstacle.
	• The batteries in the remote control are exhausted.	• Replace the batteries with new ones.

1-4. REFERENCE

■ Language Code List

Enter the appropriate code number for the initial settings “Disc Audio”, “Disc Subtitle” and/or “Disc Menu” (See page 16).

Code	Language	Code	Language	Code	Language	Code	Language
6565	Afar	7079	Faroese	7678	Lingala	8375	Slovak
6566	Abkhazian	7082	French	7679	Laothian	8376	Slovenian
6570	Afrikaans	7089	Frisian	7684	Lithuanian	8377	Samoan
6577	Ameharic	7165	Irish	7686	Latvian, Lettish	8378	Shona
6582	Arabic	7168	Scots Gaelic	7771	Malagasy	8379	Somali
6583	Assamese	7176	Galician	7773	Maori	8381	Albanian
6588	Aymara	7178	Guarani	7775	Macedonian	8382	Serbian
6590	Azerbaijani	7185	Gujarati	7776	Malayalam	8385	Sudanese
6665	Bashkir	7265	Hausa	7778	Mongolian	8386	Swedish
6669	Byelorussian	7273	Hindi	7779	Moldavian	8387	Swahili
6671	Bulgarian	7282	Croatian	7782	Marathi	8465	Tamil
6672	Bihari	7285	Hungarian	7783	Malay	8469	Telugu
6678	Bengali; Bangla	7289	Armenian	7784	Maltese	8471	Tajik
6679	Tibetan	7365	Interlingua	7789	Burmese	8472	Thai
6682	Breton	7378	Indonesian	7865	Nauru	8473	Tigrinya
6765	Catalan	7383	Icelandic	7869	Nepali	8475	Turkmen
6779	Corsican	7384	Italian	7876	Dutch	8476	Tagalog
6783	Czech	7387	Hebrew	7879	Norwegian	8479	Tonga
6789	Welsh	7465	Japanese	7982	Oriya	8482	Turkish
6865	Danish	7473	Yiddish	8065	Panjabi	8484	Tatar
6869	German	7487	Javanese	8076	Polish	8487	Twi
6890	Bhutani	7565	Georgian	8083	Pashto, Pushto	8575	Ukrainian
6976	Greek	7575	Kazakh	8084	Portuguese	8582	Urdu
6978	English	7576	Greenlandic	8185	Quechua	8590	Uzbek
6979	Esperanto	7577	Cambodian	8277	Rhaeto-Romance	8673	Vietnamese
6983	Spanish	7578	Kannada	8279	Rumanian	8679	Volapük
6984	Estonian	7579	Korean	8285	Russian	8779	Wolof
6985	Basque	7583	Kashmiri	8365	Sanskrit	8872	Xhosa
7065	Persian	7585	Kurdish	8368	Sindhi	8979	Yoruba
7073	Finnish	7589	Kirghiz	8372	Serbo-Croatian	9072	Chinese
7074	Fiji	7665	Latin	8373	Singhalese	9085	Zulu

1-4. REFERENCE

■ Area Code List

Enter the appropriate code number for the initial setting “Area Code” (See page 17).

Code	Area
AD	Andorra
AE	United Arab Emirates
AF	Afghanistan
AG	Antigua and Barbuda
AI	Anguilla
AL	Albania
AM	Armenia
AN	Netherlands Antilles
AO	Angola
AQ	Antarctica
AR	Argentina
AS	American Samoa
AT	Austria
AU	Australia
AW	Aruba
AZ	Azerbaidjan
BA	Bosnia-Herzegovina
BB	Barbados
BD	Bangladesh
BE	Belgium
BF	Burkina Faso
BG	Bulgaria
BH	Bahrain
BI	Burundi
BJ	Benin
BM	Bermuda
BN	Brunei Darussalam
BO	Bolivia
BR	Brazil
BS	Bahamas
BT	Bhutan
BV	Bouvet Island
BW	Botswana
BY	Belarus
BZ	Belize
CA	Canada
CC	Cocos (Keeling) Islands
CF	Central African Republic
CG	Congo
CH	Switzerland
CI	Ivory Coast
CK	Cook Islands
CL	Chile
CM	Cameroon
CN	China
CO	Colombia
CR	Costa Rica
CS	Former Czechoslovakia
CU	Cuba
CV	Cape Verde
CX	Christmas Island
CY	Cyprus
CZ	Czech Republic
DE	Germany
DJ	Djibouti
DK	Denmark
DM	Dominica
DO	Dominican Republic
DZ	Algeria
EC	Ecuador
EE	Estonia
EG	Egypt
EH	Western Sahara
ER	Eritrea
ES	Spain
ET	Ethiopia
FI	Finland
FJ	Fiji
FK	Falkland Islands
FM	Micronesia
FO	Faroe Islands
FR	France
FX	France (European Territory)
GA	Gabon
GB	Great Britain
GD	Grenada
GE	Georgia
GF	French Guyana
GH	Ghana
GI	Gibraltar
GL	Greenland
GM	Gambia
GN	Guinea
GP	Guadeloupe (French)
GQ	Equatorial Guinea
GR	Greece
GS	S. Georgia & S. Sandwich Isls.
GT	Guatemala
GU	Guam (USA)
GW	Guinea Bissau
GY	Guyana
HK	Hong Kong
HM	Heard and McDonald Islands
HN	Honduras
HR	Croatia
HT	Haiti
HU	Hungary
ID	Indonesia
IE	Ireland
IL	Israel
IN	India
IO	British Indian Ocean Territory
IQ	Iraq
IR	Iran
IS	Iceland
IT	Italy
JM	Jamaica
JO	Jordan
JP	Japan
KE	Kenya
KG	Kyrgyzstan
KH	Cambodia6
KI	Kiribati
KM	Comoros
KN	Saint Kitts & Nevis Anguilla
KP	North Korea
KR	South Korea
KW	Kuwait
KY	Cayman Islands
KZ	Kazakhstan
LA	Laos
LB	Lebanon
LC	Saint Lucia
LI	Liechtenstein
LK	Sri Lanka
LR	Liberia
LS	Lesotho
LT	Lithuania
LU	Luxembourg
LV	Latvia
LY	Libya
MA	Morocco
MC	Monaco
MD	Moldavia
MG	Madagascar
MH	Marshall Islands
MK	Macedonia
ML	Mali
MM	Myanmar
MN	Mongolia
MO	Macau
MP	Northern Mariana Islands
MQ	Martinique (French)
MR	Mauritania
MS	Montserrat
MT	Malta
MU	Mauritius
MV	Maldives
MW	Malawi
MX	Mexico
MY	Malaysia
MZ	Mozambique
NA	Namibia
NC	New Caledonia (French)
NE	Niger
NF	Norfolk Island
NG	Nigeria
NI	Nicaragua
NL	Netherlands
NO	Norway
NP	Nepal
NR	Nauru
NU	Niue
NZ	New Zealand
OM	Oman
PA	Panama
PE	Peru
PF	Polynesia (French)
PG	Papua New Guinea
PH	Philippines
PK	Pakistan
PL	Poland
PM	Saint Pierre and Miquelon
PN	Pitcairn Island
PR	Puerto Rico
PT	Portugal
PW	Palau
PY	Paraguay
QA	Qatar
RE	Reunion (French)
RO	Romania
RU	Russian Federation
RW	Rwanda
SA	Saudi Arabia
SB	Solomon Islands
SC	Seychelles
SD	Sudan
SE	Sweden
SG	Singapore
SH	Saint Helena
SI	Slovenia
SJ	Svalbard and Jan Mayen Islands
SK	Slovak Republic
SL	Sierra Leone
SM	San Marino
SN	Senegal
SO	Somalia
SR	Suriname
ST	Saint Tome and Principe
SU	Former USSR
SV	El Salvador
SY	Syria
SZ	Swaziland
TC	Turks and Caicos Islands
TD	Chad
TF	French Southern Territories
TG	Togo
TH	Thailand
TJ	Tadjikistan
TK	Tokelau
TM	Turkmenistan
TN	Tunisia
TO	Tonga
TP	East Timor
TR	Turkey
TT	Trinidad and Tobago
TV	Tuvalu
TW	Taiwan
TZ	Tanzania
UA	Ukraine
UG	Uganda
UK	United Kingdom
UM	USA Minor Outlying Islands
US	United States
UY	Uruguay
UZ	Uzbekistan
VA	Vatican City State
VC	Saint Vincent & Grenadines
VE	Venezuela
VG	Virgin Islands (British)
VI	Virgin Islands (USA)
VN	Vietnam
VU	Vanuatu
WF	Wallis and Futuna Islands
WS	Samoa
YE	Yemen
YT	Mayotte
YU	Yugoslavia
ZA	South Africa
ZM	Zambia
ZR	Zaire
ZW	Zimbabwe

1-4. REFERENCE

■ Specification

[General]	Power supply	AC 220-240V, 50/60Hz	
	Power consumption	70 W	
	Mass	4.6 kg	
	External dimensions (W x H x D)	360 x 70 x 340 mm	
	Operating conditions	Temperature: 5°C to 35°C, Operation status: Horizontal	
	Operating humidity	5% to 90%	
[CD/DVD]	Laser	Semiconductor laser, wavelength 650 nm	
	Signal system	PAL 625/50, NTSC 525/60	
	Frequency response (audio)	4 Hz to 20 kHz	
	Signal-to-noise ratio (audio)	More than 75 dB (1 kHz, NOP, 20 kHz LPF/A-Filter)	
	Dynamic range (audio)	More than 70 dB	
	Harmonic distortion (audio)	0.5 % (1 kHz, at 12W position)	
[Video]	Video input	1.0 V (p-p), 75Ω, negative sync., RCA jack	
	Video output	1.0 V (p-p), 75Ω, negative sync., RCA jack	
	S-video output	(Y) 1.0 V (p-p), 75Ω, negative sync., Mini DIN 4-pin x 1 (C) 0.3 V (p-p), 75Ω	
	Component video output	(Y) 1.0 V (p-p), 75Ω, negative sync., RCA jack x 1 (Pb)/(Pr) 0.7 V (p-p), 75Ω	
[Tuner] FM	Tuning Range	87.5 - 108 MHz	
	Intermediate Frequency	10.7 MHz	
	Signal-to Noise Ratio	60 dB	
	Frequency Response	150 - 12,000 Hz	
[Tuner] AM (MW)	Tuning Range	522 - 1,611 kHz	
	Intermediate Frequency	450 kHz	
[Amplifier]	Stereo mode Surround mode **(* Depending on the sound mode settings and the source, there may be no sound output.)**	35W + 35W (8Ω at 1 kHz, THD 10 %) Front: 35W + 35W (THD 10 %) Center*: 35W Surround*: 35W + 35W (8Ω at 1 kHz, THD 10 %) Subwoofer*: 35W (8Ω at 30 Hz, THD 10 %)	
	Inputs	VIDEO 1, VIDEO 2, OPTICAL AUDIO	
	Outputs	VIDEO 1 (AUDIO OUT) : 2 V WOOFER: 2 V PHONES: (32Ω, 0.9W)	
[Speakers]		Satellite Speaker	Passive Subwoofer
	Type	1 Way 1 Speaker	1 Way 1 Speaker
	Impedance	8Ω	8Ω
	Frequency Response	120 - 20,000 Hz	45 - 1,500 Hz
	Sound Pressure Level	83 dB/W (1m)	82 dB/W (1m)
	Rated Input Power	35W	35 W
	Max. Input Power	70 W	70 W
	Net Dimensions (W x H x D)	90 x 125 x 106.5 mm	160 x 350 x 325 mm
	Net Weight	0.65 kg	4.5kg
[Supplied Accessories]	• Audio cable .....1 • Speakers .....6 • Remote control .....1 • AM loop antenna .....1 • RCA-SCART Adaptor 1	• Video cable .....1 • Speaker cables .....5 • Batteries (AAA) .....2 • FM antenna 1	

Designs and specifications are subject to change without notice.

SECTION 2. SERVICE MANUAL

SECTION 2-1. GENERAL PART

• SERVICING PRECAUTIONS ····· 2-2

• ESD PRECAUTIONS ····· 2-4

SECTION 2-2. AUDIO PART

• ELECTRICAL TROUBLESHOOTING GUDIE ····· 2-5

• DVD PLAYER PROGRAM DOWNLOAD METHOD ····· 2-9

• WAVEFORMS OF MAJOR CHECK POINT ····· 2-11

• INTERNAL BLOCK DIAGRAM OF IC's ····· 2-12

• IC VOLTAGE SHEET ····· 2-14

• BLOCK DIAGRAM ····· 2-17

• SCHEMATIC DIAGRAMS ····· 2-19

• PRINTED CIRCUIT DIARGAMS ····· 2-31

SECTION 2-3. DVD PART

• ELECTRICAL TROUBLESHOOTING GUIDE ····· 2-39

• BLOCK DIAGRAMS ····· 2-47

• SCHEMATIC DIAGRAMS ····· 2-51

• WAVEFORMS ····· 2-59

• PRINTED CIRCUIT DIAGRAM ····· 2-65

SECTION 2-4. MECHANSIM ····· 2-69

SECTION 2-5. EXPLODED VIEWS ····· 2-73

SECTION 2-6. SPEAKER PART ····· 2-77

SECTION 2-7. REPLACEMENT PARTS LIST ····· 2-79

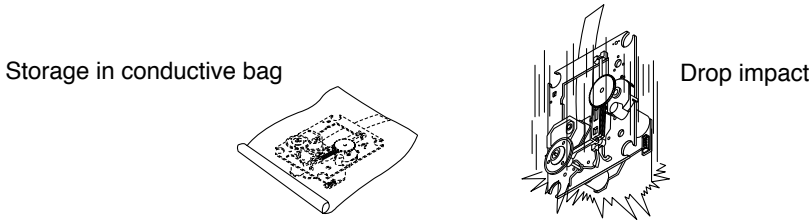
SECTION 2-1. GENERAL PART

SERVICING PRECAUTIONS

NOTES REGARDING HANDLING OF THE PICK-UP

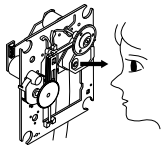
1. Notes for transport and storage

1) The pick-up should always be left in its conductive bag until immediately prior to use.
2) The pick-up should never be subjected to external pressure or impact.



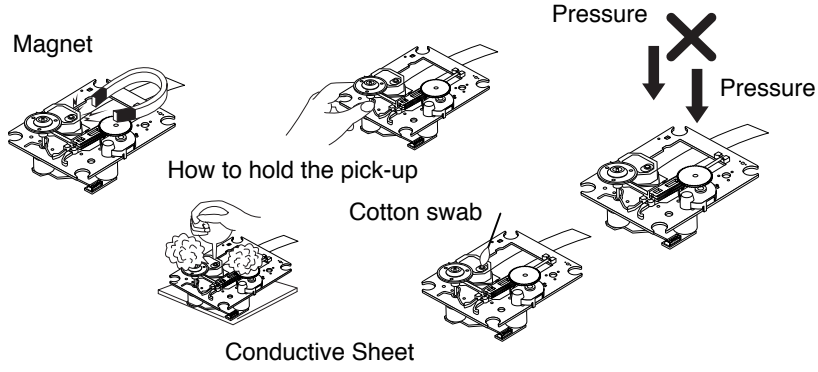
2. Repair notes

1) The pick-up incorporates a strong magnet, and so should never be brought close to magnetic materials.
2) The pick-up should always be handled correctly and carefully, taking care to avoid external pressure and impact. If it is subjected to strong pressure or impact, the result may be an operational malfunction and/or damage to the printed-circuit board.
3) Each and every pick-up is already individually adjusted to a high degree of precision, and for that reason the adjustment point and installation screws should absolutely never be touched.
4) Laser beams may damage the eyes!
   Absolutely never permit laser beams to enter the eyes!
   Also NEVER switch ON the power to the laser output part (lens, etc.) of the pick-up if it is damaged.



NEVER look directly at the laser beam, and don't let contact fingers or other exposed skin.

5) Cleaning the lens surface
   If there is dust on the lens surface, the dust should be cleaned away by using an air bush (such as used for camera lens). The lens is held by a delicate spring. When cleaning the lens surface, therefore, a cotton swab should be used, taking care not to distort this.



6) Never attempt to disassemble the pick-up.
   Spring by excess pressure. If the lens is extremely dirty, apply isopropyl alcohol to the cotton swab. (Do not use any other liquid cleaners, because they will damage the lens.) Take care not to use too much of this alcohol on the swab, and do not allow the alcohol to get inside the pick-up.

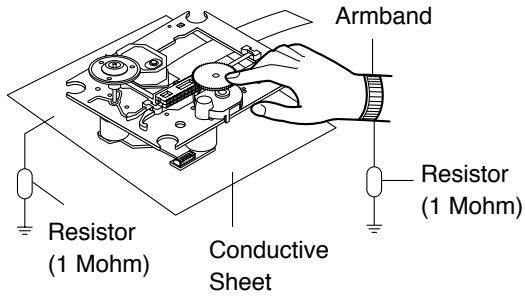
NOTES REGARDING COMPACT DISC PLAYER REPAIRS

1. Preparations

1) Compact disc players incorporate a great many ICs as well as the pick-up (laser diode). These components are sensitive to, and easily affected by, static electricity. If such static electricity is high voltage, components can be damaged, and for that reason components should be handled with care.
2) The pick-up is composed of many optical components and other high-precision components. Care must be taken, therefore, to avoid repair or storage where the temperature of humidity is high, where strong magnetism is present, or where there is excessive dust.

2. Notes for repair

1) Before replacing a component part, first disconnect the power supply lead wire from the unit
2) All equipment, measuring instruments and tools must be grounded.
3) The workbench should be covered with a conductive sheet and grounded.
   When removing the laser pick-up from its conductive bag, do not place the pick-up on the bag. (This is because there is the possibility of damage by static electricity.)
4) To prevent AC leakage, the metal part of the soldering iron should be grounded.
5) Workers should be grounded by an armband (1MΩ)
6) Care should be taken not to permit the laser pick-up to come in contact with clothing, in order to prevent static electricity changes in the clothing to escape from the armband.
7) The laser beam from the pick-up should NEVER be directly facing the eyes or bare skin.



ESD PRECAUTIONS

Electrostatically Sensitive Devices (ESD)

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive Devices (ESD). Examples of typical ESD devices are integrated circuits and some field-effect transistors and semiconductor chip components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ESD devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ESD devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESD devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESD devices.
6. Do not remove a replacement ESD device from its protective package until immediately before you are ready to install it. (Most replacement ESD devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive materials).
7. Immediately before removing the protective material from the leads of a replacement ESD device, touch the protective material to the chassis or circuit assembly into which the device will by installed.

CAUTION : BE SURE NO POWER IS APPLIED TO THE CHASSIS OR CIRCUIT, AND OBSERVE ALL OTHER SAFETY PRECAUTIONS.

8. Minimize bodily motions when handing unpackaged replacement ESD devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ESD device).

CAUTION. GRAPHIC SYMBOLS

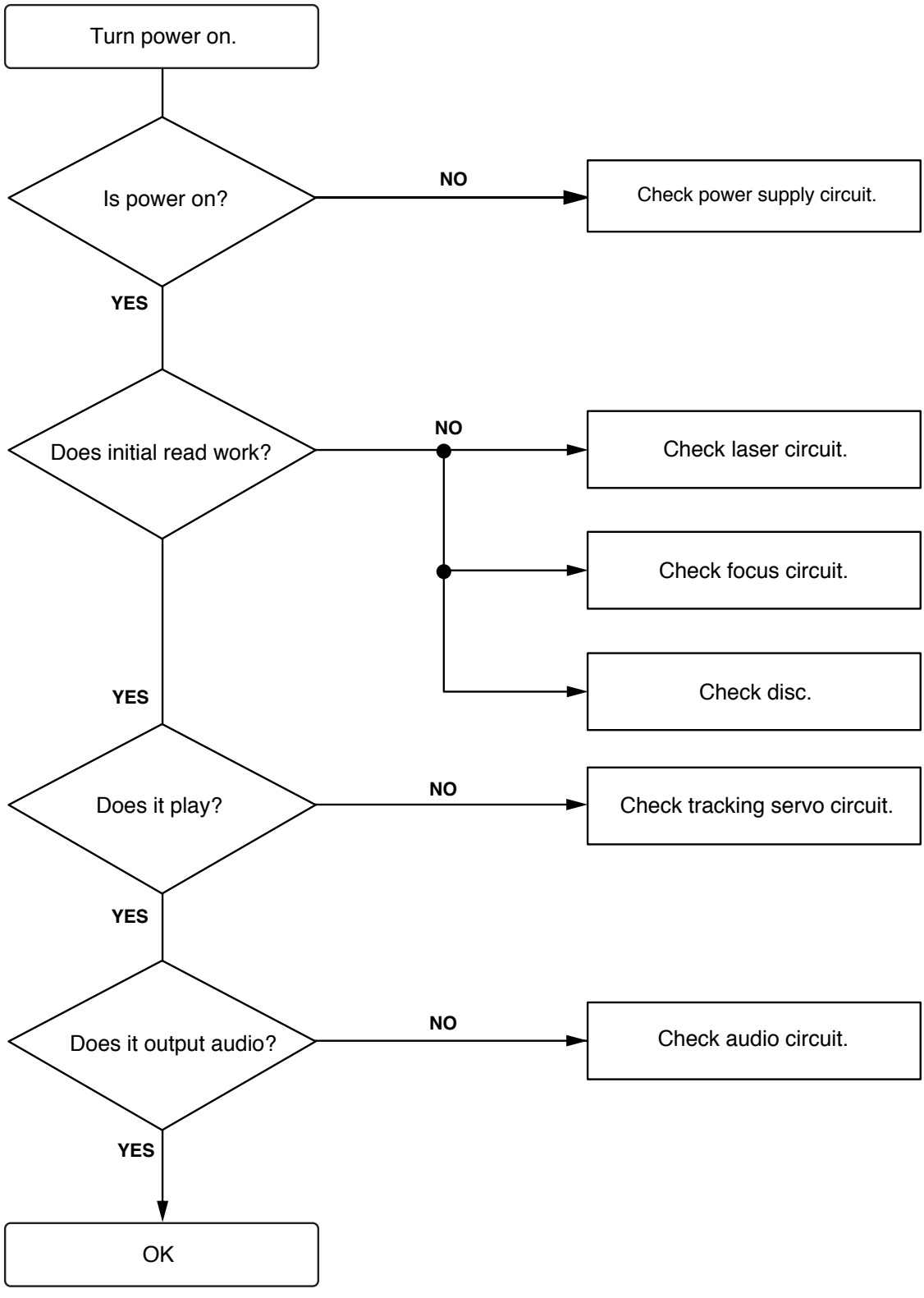
THE LIGHTNING FLASH WITH APROWHEAD SYMBOL. WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF UNINSULATED “DANGEROUS VOLTAGE” THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK.

THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF IMPORTANT SAFETY INFORMATION IN SERVICE LITERATURE.

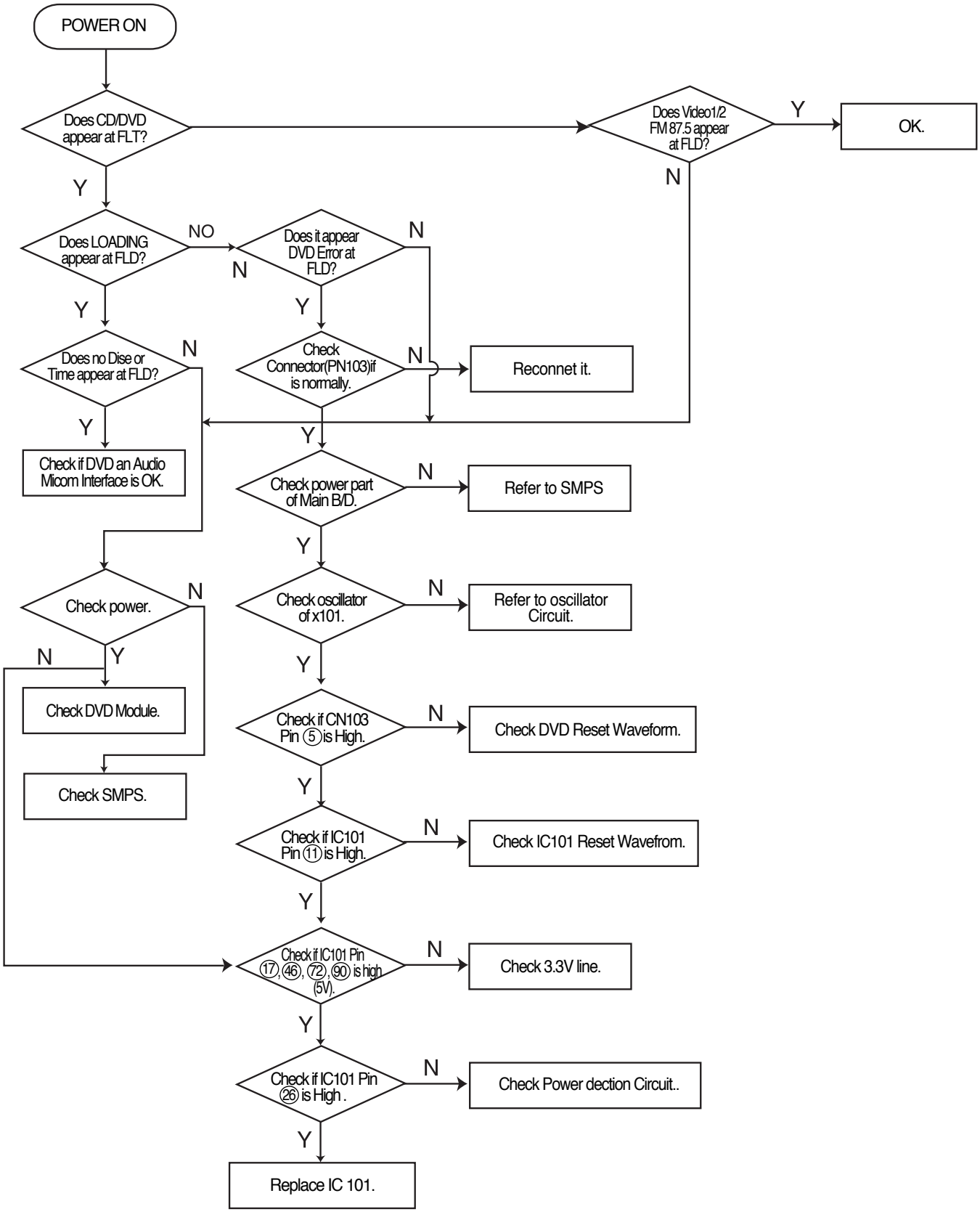
SECTION 2-2. AUDIO PART

ELECTRICAL TROUBLESHOOTING GUDIE

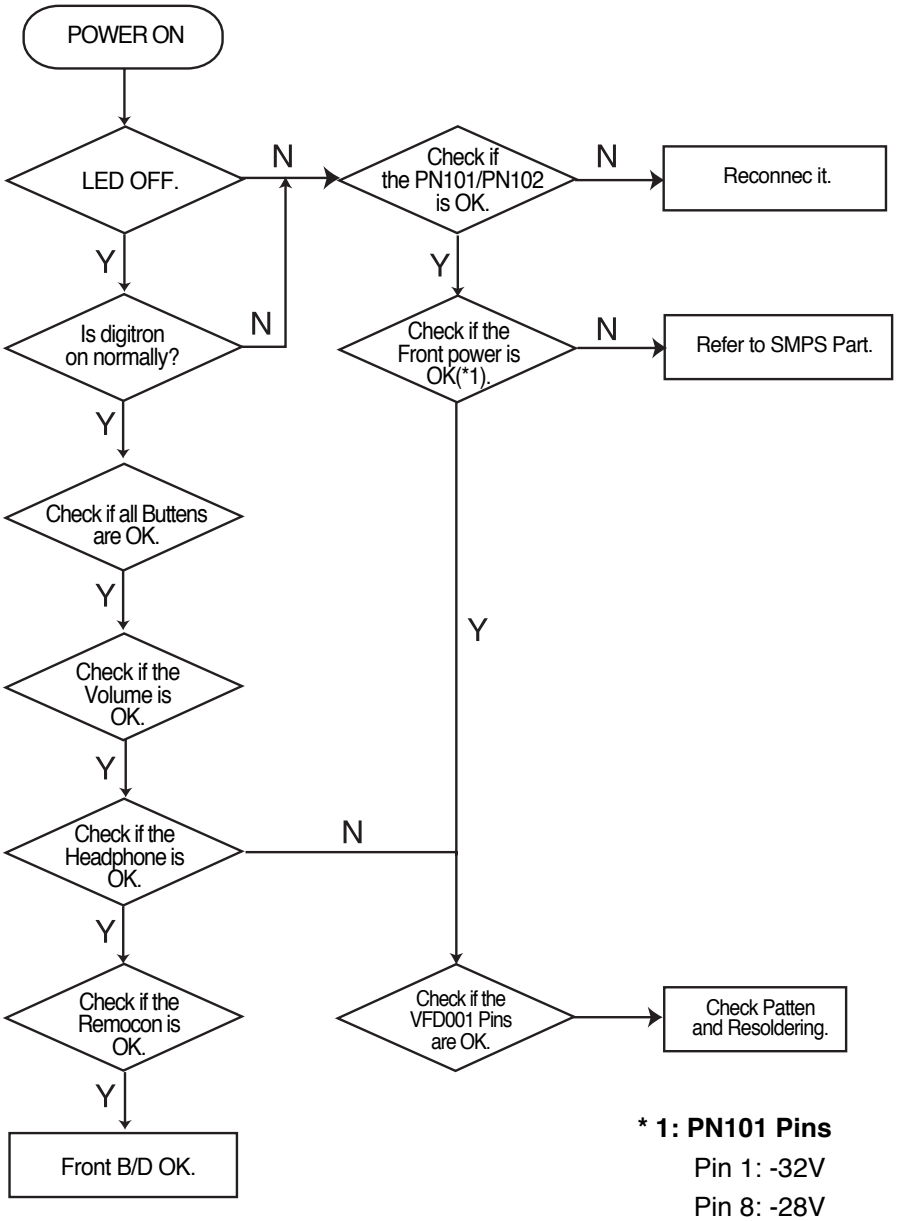
1.



2. AUDIO μ. COM Circuit



3. Front Circuit (1/2)



*** 1: PN101 Pins**

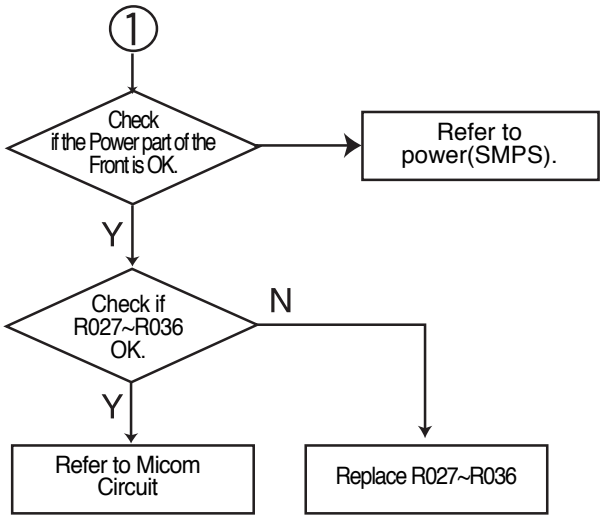
Pin 1: -32V

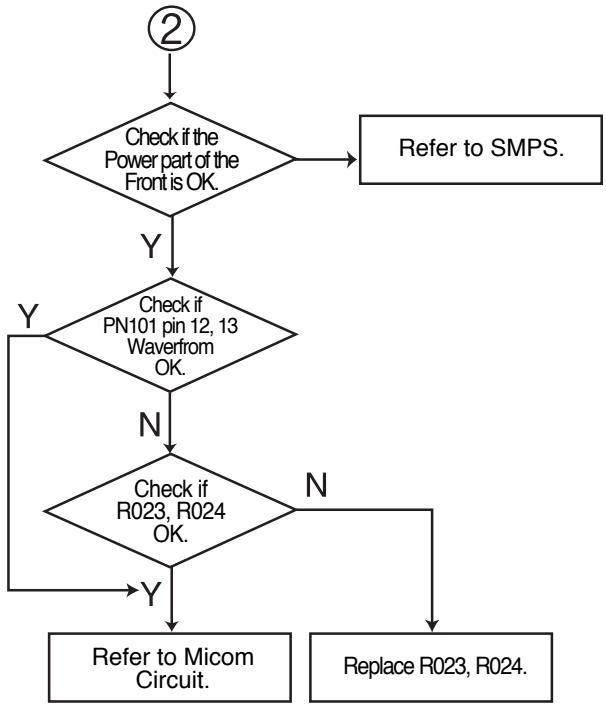
Pin 8: -28V

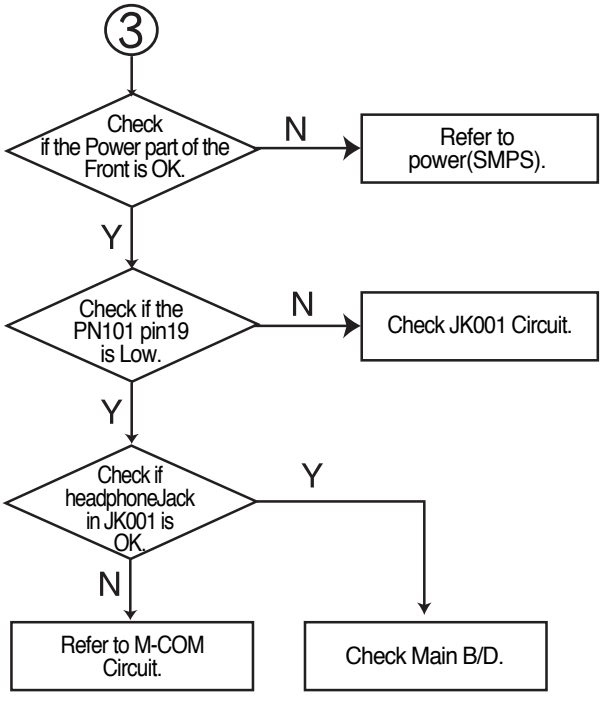
Pin 9: -32V

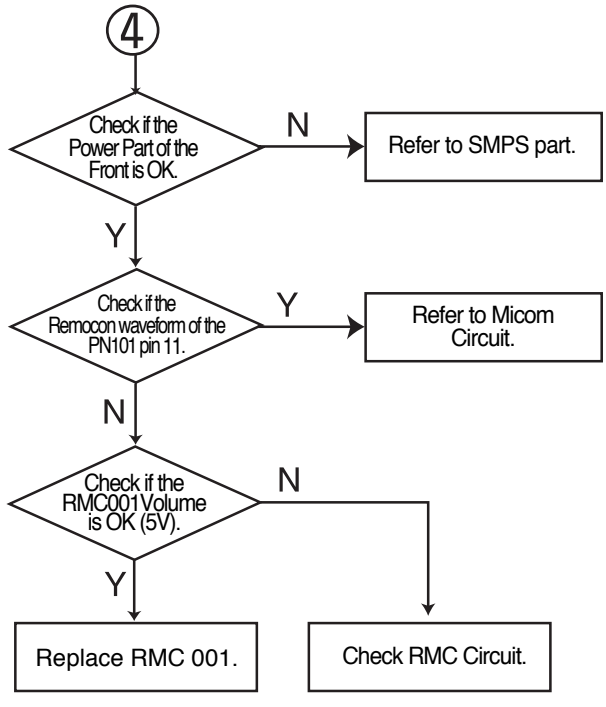
Pin 20: 12V

Front Circuit (2/2)









DVD PLAYER PROGRAM DOWNLOAD METHOD

1. DVD player without CD-RW option

1-1) Download the DVD program from your PC as following procedure

ACTION	FLD display
• Plug the Power cord out	
• Connect the Fixture for download (Refer to Deck Mechanism Adjustment)	
• Execute the prgram for download(Flashrom.exe)	
• Open the DVD program file	
• Plug the Power cord in	
• Press the MENU Key on the Remote controller	FLASH
• Select Down icon with injector icon then start download from the P.C	
■ In status of download	
• Erased the Flash memory	FLASH ERA
• Written the Flash memory	FLASH XX(XX: Program counter)
• Verified the Flash memory	FLASH XX(XX: Program counter)
• Completed the download	FINISHED

■ If an error was occurred during download, do not unplug the Power cord, and retry the download form the P.C until it is completed.

2. DVD player with CD-RW option(for models using C-CUBE MPEG chip, marking on the IC is ZIVA)

2-1) Make the DVD program upgrade Disc as following procedure

*Recommended S/W: adaptec Easy CD Creater
*use file format: ISO9660

- Rename the souce file from the P.C to FIRMWARE.BIN
  (Ex, If Source file is lg_a3_korea.bin, rename to FIRMWARE.BIN)
- Format the CD-RW Disc as below Make the Folder name to UPGRSADE.DVD under root folder
  (Ex, ₩UPGRADE.DVD)
- Download the source file renamed to FIRMWARE.BIN in the folder
  (Ex, ₩UPGRADE.DVD ₩FIRMWARE.BIN)

2-2) Insert the upgrade Disc into the DVD player slot, then the DVD player reads the Disc and upgrade the Firmware itself as followings

Status	FLD display on DVD player
• Detect the upgrade Disc	No display
• Read the Disc	Cd rEAD XX(XX: Program counter)
• Erased the Flash memory	FLASH ERA
• Written the Flash memory	FLASH XX(XX: Program counter)
• Verified the Flash memory	FLASH XX(XX: Program counter)
• Completed the upgrade	FINISHED

Note: After completed, plug the Power cord out and in again, and then press the Open key, then the Disc will be ejected.

Caution: While CD detecting and reading, if Open key or Power is pressed Then download procedure will be aborted.

3. DVD player with CD-RW option (for models using NS MPEG chip, marking on the IC is PANTERA)

3-1) Make the DVD program upgrade Disc as following procedure

*Recommended S/W: adaptec Easy CD Creater
*use file format: ISO9660

- Format the CD-RW Disc as below.
  Make the Folder name to “lg_dvd₩UPGRADE₩lg” under root folder
  (₩lg_dvd_firmware₩upgrade₩lg)
- Download the source file in the folder
  (Ex, If the source file is “lg_a3_korea.bin, “lg_dvd₩firmware₩upgrade₩lg₩lg_a3_korea.bin”)

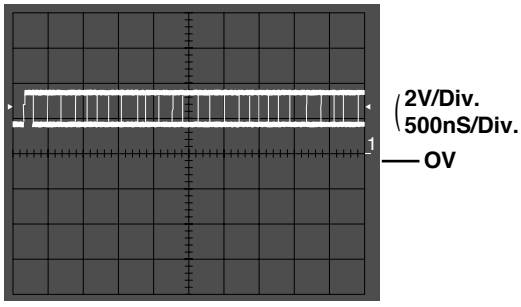
3-2) UPgrade the firmware for DVD player as followings

ACTION	FLD display on dvd player
• Insert the upgraded Disc into the DVD player solt then starts the detecting	Press Up
• Press the UP key on the Remote controller then starts the reading	READ 0(If error is occurred, displayed retry counter)
- Starts the upgrading	UPGRADE 0(If error is occurred, displayed retry counter)
- Completed the upgrading	FINISHED → checksum
- Opened the Tray Disc	(“FINISHED → checksum” is displayed repeatedly at 2 second intervals)
• Plug the Power Cord out	

Note: In the status of FLD with “READ 0” or “UPGRADE 0”
If an error is occured, the read counter, “READ 0”, shows retry counter or “ERROR num”
If the num has 0~2, retry the firmware upgrade procedure.
If the error is continued after retrying 5 times, replace the Flash ROM IC.

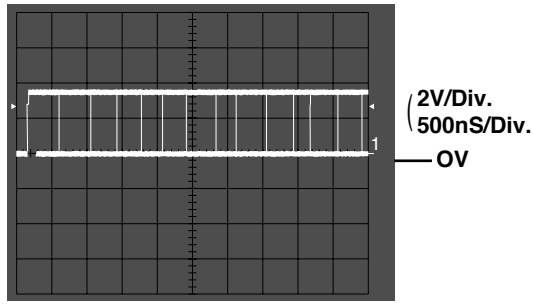
WAVEFORMS OF MAJOR CHECK POINT

1)



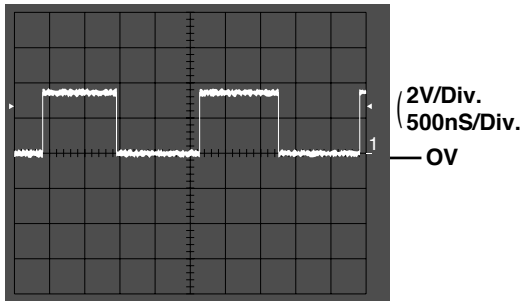
- IC 208 pin ⑤
- Serial data clock waveform during normal play.

2)



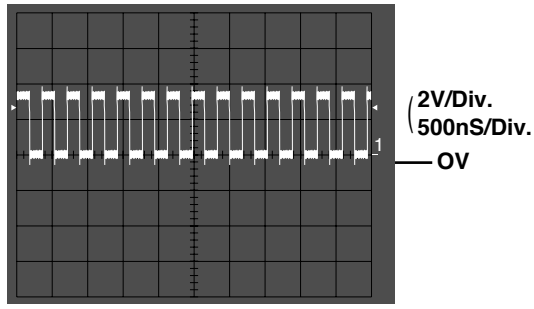
- IC 208 pin ⑦
- Serial data output wavefrom during normal play.

3)



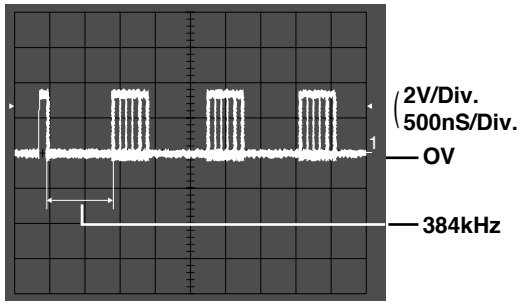
- IC 201 pin ㊷
- L/R clock data input wavefrom during normal operation.

4)



- IC 201 pin ㊸
- Bit clock data input waveform during normal operation.

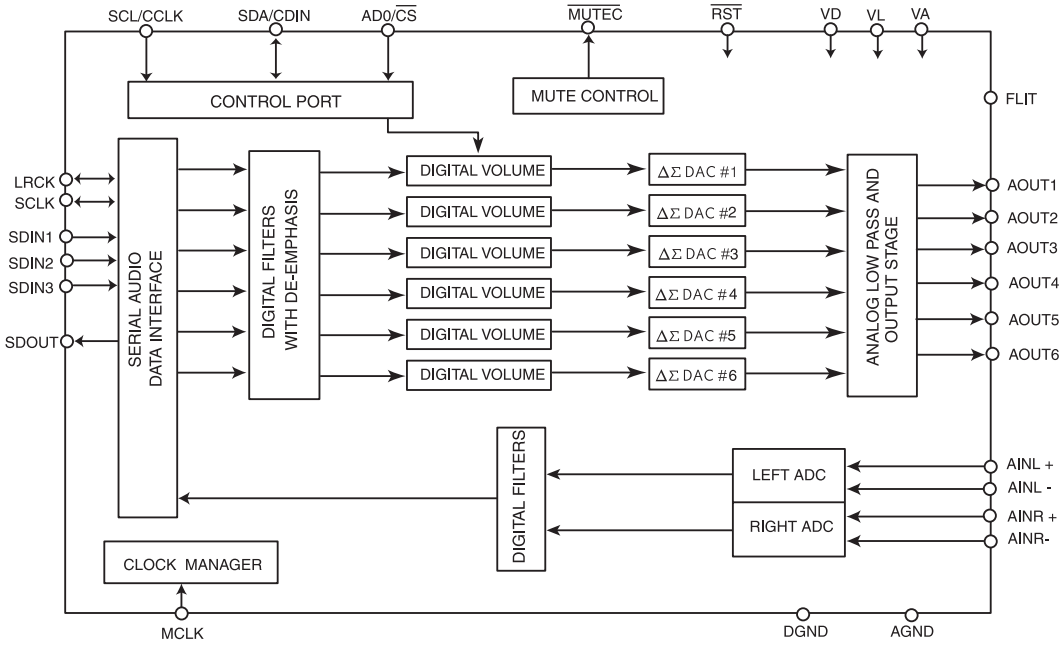
5)



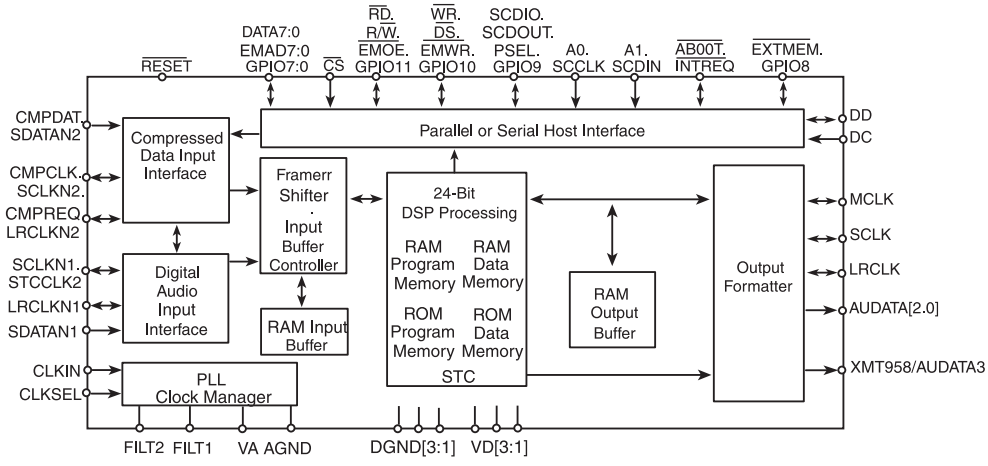
- IC 301 pin ㊸ , ㊹ , ㊻ , ㊼ , ㊿ , ㊶ , ㊸ , ㊹ , ㊼ , ㊽ , ㊿ , ㊶ .
- PWM data output wavefrom during normal operation.

INTERNAL BLOCK DIAGRAM OF ICs

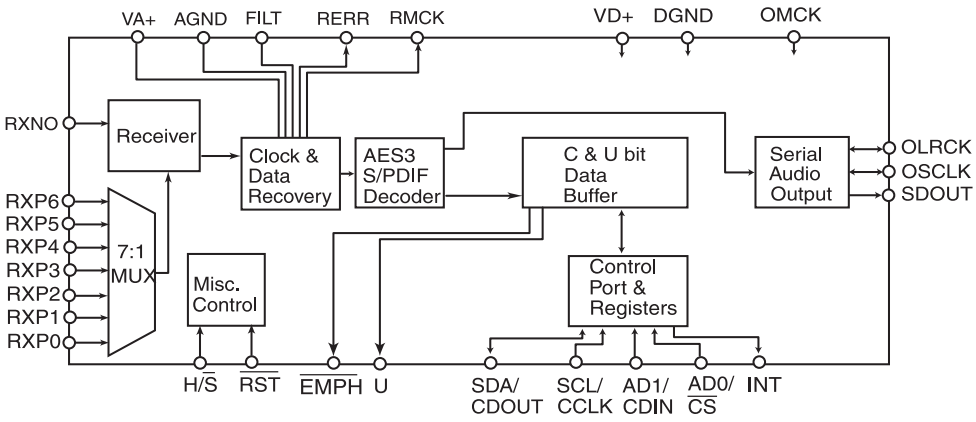
■ CS4228



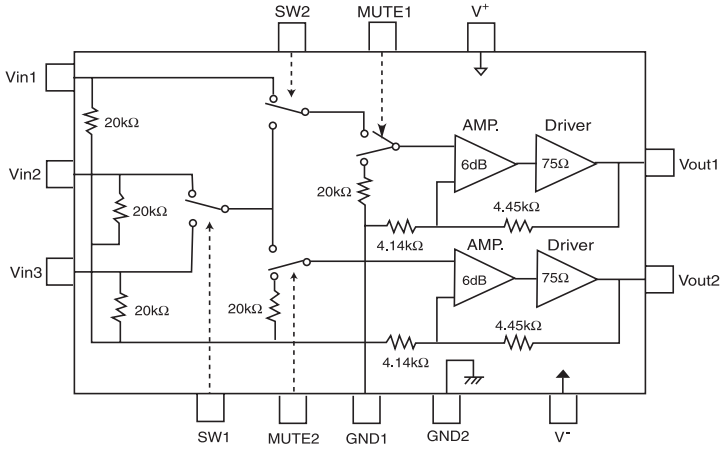
■ CS49300



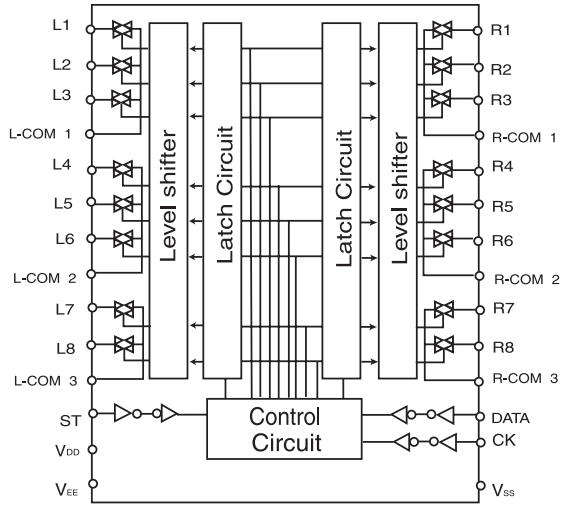
■ CS8415A



■ NJM2279



■ NJU7312A



IC VOLTAGE SHEET

■ STA505 (IC710, IC730, IC750, IC770)

PIN No.	Volt(V)
1	
2	
3	
4	32
5	
6	
7	32
8	
9	
10	
11	
12	32
13	
14	
15	32
16	
17	
18	
19	
20	
21	
22	
23	3.3
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	

■ NJM 2279 (IC102)

PIN No.	Volt(V)
1	0
2	2
3	0
4	5
5	1.3
6	0
7	0
8	5
9	0
10	1.3
11	0
12	1.4
13	5
14	-5

■ CS8415 (IC206)

PIN No.	Volt(V)	PIN No.	Volt(V)
1	2.8	15	0
2	2.9	16	1.6
3	3.2	17	1.6
4	2.8	18	0
5	2.8	19	3
6	5	20	0
7	0	21	0
8	2.2	22	3
9	1.6	23	0
10	1.6	24	0
11	0	25	0
12	0	26	3
13	0	27	0
14	0	28	

■ PS9702B (IC301)

PIN No.	Volt(V)	PIN No.	Volt(V)	PIN No.	Volt(V)	PIN No.	Volt(V)
1	0	26	0	51	3.21	76	2.92
2	0	27	0	52	0	77	3.21
3	3.21	28	0	53	1.6	78	0
4	4.78	29	0	54	1.6	79	3.28
5		30		55	0	80	0
6	2.95	31	0	56	1.6	81	3.21
7	1.67	32	3.21	57	1.6	82	3.21
8	0	33	0	58	3.21	83	0
9	0	34	0	59	0	84	3.21
10	0	35	0	60	1.6	85	0
11	0	36	0	61	1.6	86	1.67
12	0	37	0	62	0	87	0
13	0	38	1.62	63	1.6	88	0
14	0	39	0	64	1.6	89	0
15	3.21	40	3.21	65	3.21	90	3.21
16	0	41	0	66	0	91	0
17	0	42	0	67	1.6	92	4.77
18	0	43	0	68	1.6	93	0
19	0	44	0	69	0	94	0
20	0	45	0	70	1.6	95	0
21	0	46	3.21	71	1.6	96	0
22	1.6	47	0	72	3.21	97	0
23	1.64	48	0	73	0	98	0
24	3.21	49	0	74	0	99	3.21
25	0	50	0	75	0	100	0

■ LC87F67 (IC101)

PIN No.	Volt(V)	PIN No.	Volt(V)	PIN No.	Volt(V)	PIN No.	Volt(V)
1	0	26	2.45	51	-1	76	-3.25
2	0	27	1.02	52	-1	77	-3.25
3	0	28	1.63	53	0	78	-3.25
4	0	29	4.96	54	-17.71	79	-3.25
5	5.19	30	-1	55	-1	80	4.97
6	0	31	-1	56	-1	81	1.27
7	0	32	-1	57	-1	82	2
8	0	33	-1	58	-1	83	4.98
9	3.23	34	-1	59	-14.91	84	4.98
10	1.21	35	-1	60	1.31	85	4.79
11	4.9	36	-1	61	-3.23	86	1.83
12	0	37	-1	62	-3.23	87	0
13	4.85	38	-1	63	-3.23	88	4.79
14	0	39	-1	64	-3.23	89	0
15	2.4	40	-1	65	4.99	90	4.86
16	2.52	41	-1	66	4.93	91	4.86
17	4.98	42	-1	67	4.93	92	4.33
18	0	43	-1	68	0	93	4.99
19	0	44	-14.91	69	4.97	94	4.99
20	0	45	-1	70	4.97	95	4.86
21	3.58	46	5.4	71	0	96	4.79
22	3.59	47	-1	72	5.08	97	4.79
23	3.59	48	-1	73	0	98	0
24	3.59	49	-1	74	-3.94	99	1.79
25	0.9	50	-1	75	0	100	3.19

■ NJU7312AM(IC501)

PIN No.	Volt(V)	PIN No.	Volt(V)
1	-12	16	0
2	0	17	0
3	0	18	0
4	0	19	0
5	0	20	0
6	0	21	0
7	0	22	0
8	0	23	0
9	0	24	0
10	0	25	0
11	0	26	0
12	0	27	0
13		28	0
14		29	0
15		30	12

■ CS49326(IC201)

PIN No.	Volt(V)	PIN No.	Volt(V)
1	2..4	23	2.5
2	0	24	
3	0	25	1.6
4	0	26	1.6
5		27	1
6	2.9	28	1.6
7	0	29	1.6
8	2.4	30	1
9	2.4	31	0
10	2.4	32	2
11	2.4	33	1.3
12	2.5	34	2.5
13	0	35	0
14	2.4	36	3.2
15	2.4	37	2.5
16	2.4	38	2.5
17	2.4	39	0
18	3.2	40	0
19	1.7	41	0
20	2.4	42	1.6
21	2.4	43	1.6
22	0	44	1.6

■ CS4228 (IC205)

PIN No.	Volt(V)	PIN No.	Volt(V)
1	0	16	2.5
2	0	17	2.2
3	0	18	3.5
4	1.5	19	2.2
5	1.5	20	2.2
6	1.5	21	5
7		22	
8	3.2	23	2.3
9	2.5	24	2.3
10	1.6	25	2.3
11	0	26	2.3
12	2.9	27	2.3
13	3.2	28	2.3
14	3.2	29	2.3

■ IC910

PIN No.	Volt(V)
1	
2	
3	-12

■ IC921

PIN No.	Volt(V)
1	
2	12
3	

■ PN901, CN901

PIN No.	Volt(V)
1	-30
2	-25
3	-37
4	-37
5	-37
6	5.1
7	
8	
9	
10	

■ PN902, CN902

PIN No.	Volt(V)
1	27.6
2	27.6
3	27.6
4	16.9
5	5.8
6	5.8
7	0
8	
9	
10	5.8

■ IC911

PIN No.	Volt(V)
1	
2	
3	-5

■ IC922

PIN No.	Volt(V)
1	
2	8.1
3	

■ IC926

PIN No.	Volt(V)
1	
2	3.3
3	

■ IC923

PIN No.	Volt(V)
1	
2	5
3	

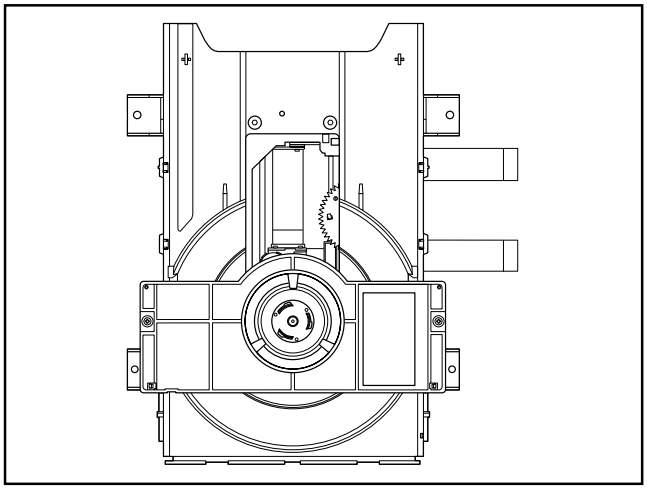
■ IC924

PIN No.	Volt(V)
1	
2	3.3
3	

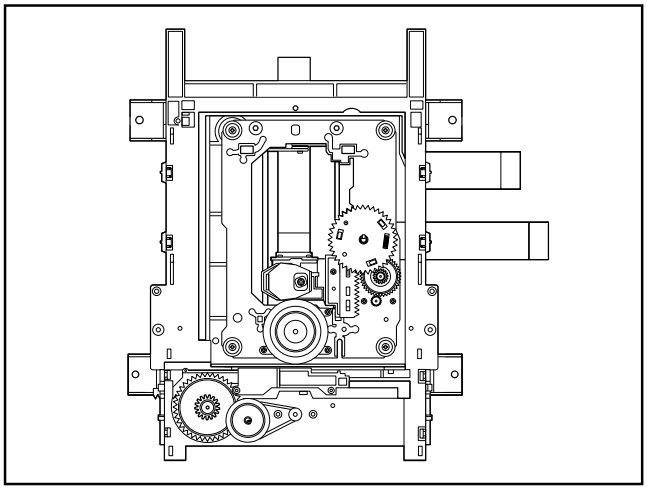
SECTION 2-4. MECHANSIM

■ DECK MECHANISM PARTS LOCKATION

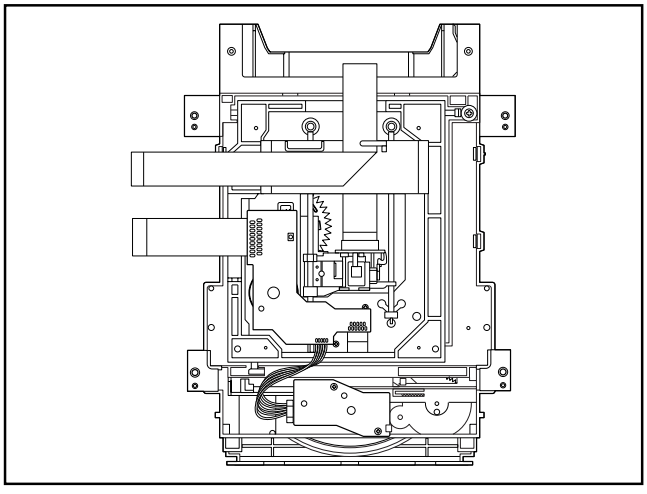
• Top View(With Tray)



• Top View(Without Tray)



• Bottom View



Procedure Starting No.		Parts	Fixing Type	Disassembly	Figure
	1	Holder Clamp	2 Screws, 2 Locking Tabs		4-1
1	2	Clamp Assembly Disc			4-1
1, 2	3	Plate Clamp			4-1
1, 2, 3	4	Magnet Clamp			4-1
1, 2, 3, 4	5	Clamp Upper			4-1
1	6	Tray Disc			4-2
1, 6	7	Base Assembly Sled			4-3
1, 2, 6	8	Gear Assembly Feed	4 Screws, 1 Connector 1 Locking Tabs		4-3
1, 2, 6, 8	9	Gear Middle			4-3
1, 2, 6, 8, 9	10	Gear Assembly Rack	1 Screw		4-3
1, 2, 7	11	Rubber Rear			4-3
1, 2, 7	12	Frame Assembly Up/Down	1 Screw	Bottom	4-4
1, 2	13	Belt Loading	1 Locking Tab		4-4
1, 2 ,13	14	Gear Pulley			4-4
1, 2, 13, 14	15	Gear Loading	1 Locking Tab		4-4
1, 2, 7, 12, 13, 14	16	Guide Up/Down			4-4
1, 2, 13	17	PWB Assembly Loading	1 Locking Tab 1 Hook 2Screw	Bottom	4-4
1, 2, 7, 12, 13, 14, 15, 16, 17	18	Base Main	2 Locking Tabs		4-4

Note

When reassembling, perform the procedure in reverse order.

The “Bottom” on Disassembly column of above Table indicates the part should be disassembled at the Bottom side.

■ DECK MECHANISM DISASSEMBLY

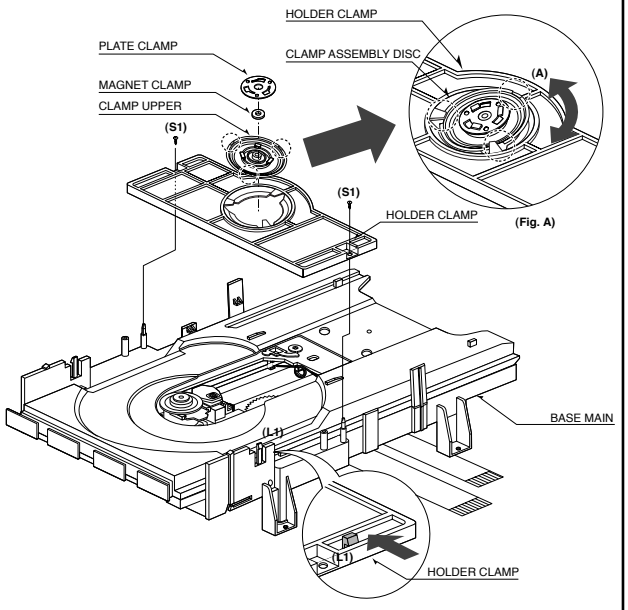


Fig. 4-1

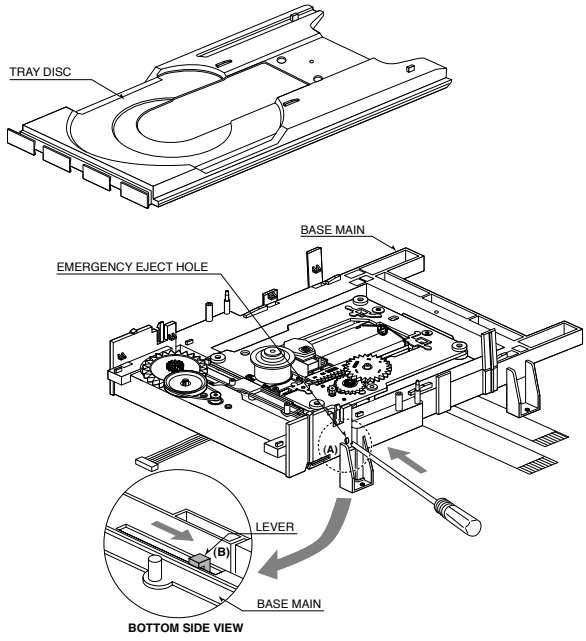


Fig. 4-2

1. Holder Clamp (Fig. 4-1)

1) Release 2 Screws(S1).
2) Unhook 2 Locking Tabs(L1).
3) Lift up the Holder Clamp and then separate it from the Base Main.

1-1. Clamp Assembly Disc

1) Place the Clamp Assembly Disc as Fig. (A)
2) Lift up the Clamp Assembly Disc in direction of arrow(A).
3) Separate the Clamp Assembly Disc from the Holder Clamp.

1-1-1. Plate Clamp

1) Turn the Plate Clamp to counterclockwise direction and then lift up the Plate Clamp.

1-1-2. Magnet Clamp

1-1-3. Clamp Upper

2. Tray Disc (Fig. 4-2)

1) Insert and push a Driver in the emergency eject hole(A) at the right side, or put the Driver on the Lever(B) of the Gear Emergency and pull the Lever(B) in direction of arrow so that the Tray Disc is ejected about 15~20mm.
2) Pull the Tray Disc until it is separated from the Base Main completely.

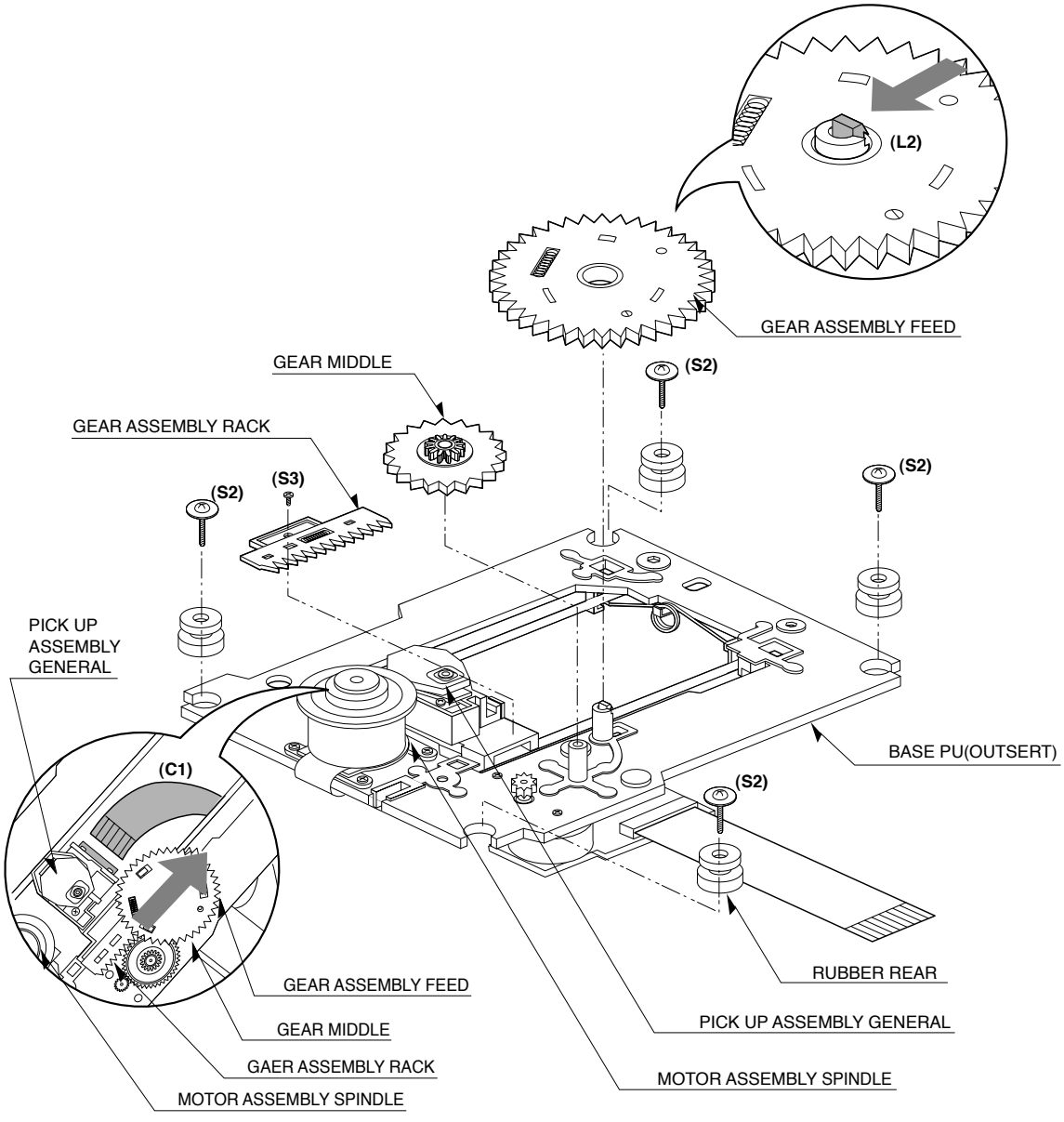


Fig. 4-3

3. Base Assembly Sled (Fig. 4-3)

1) Release 4 Screw(S2).
2) Disconnect the FFC Connector(C1)

3-1. Gear Assembly Feed

1) Unhook the Locking Tab(L2) in direction of arrow.

3-2. Gear Middle

3-3. Gear Assembly Rack

1) Release the Scerw(S3)

4. Rubber Rear (Fig. 4-3)

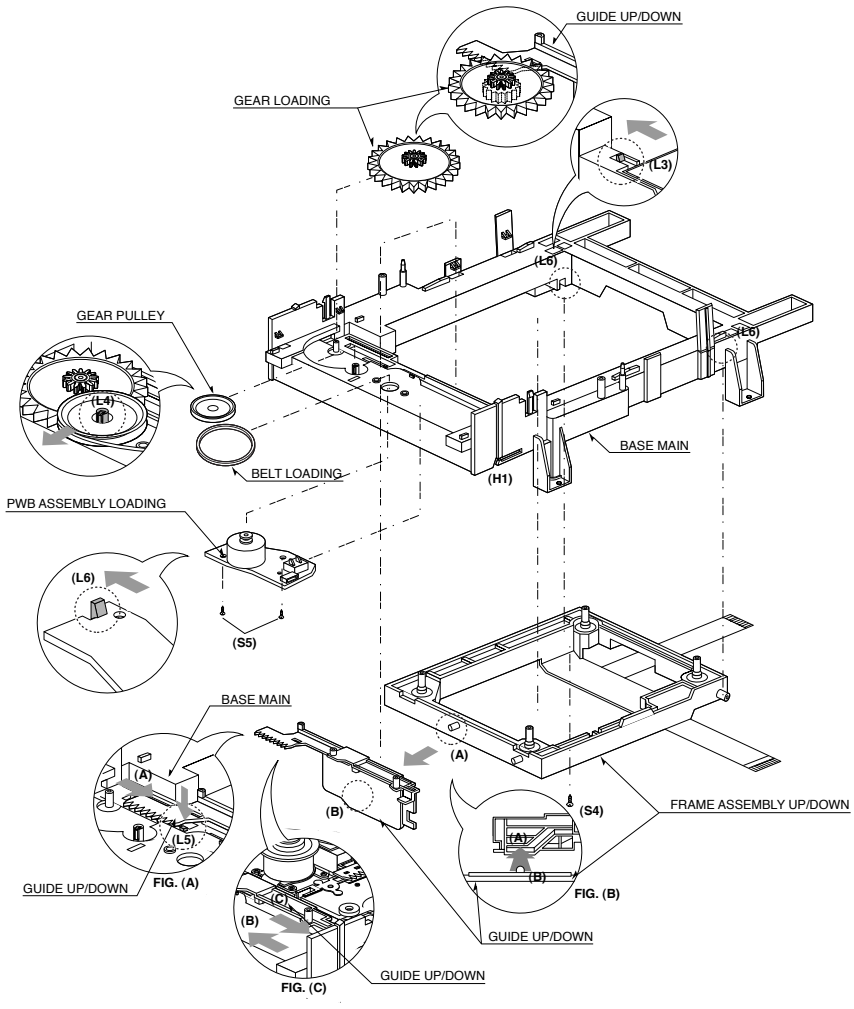


Fig. 4-4

5. Frame Assembly Up/Down

Note

Put the Base Main face down(Bottom Side)

1) Release the Screw(S4)
2) Unlock the Locking Tab(L3) in direction of arrow and then lift up the Frame Assembly Up/Down to separate it from the Base Main.

Note

- When reassembling move the Guide Up/Down in direction of arrow(C) until it is positioned as Fig.(C).
- When reassembling insert (A) portion of the Frame Assembly Up/Down in the (B) portion of the Guide Up/Down as Fig.(B)

6. Belt Loading(Fig. 4-4)

Note

Put the Base Assembly Main on original position(Top Side)

7. Gear pulley (Fig. 4-4)

1) Unlock the Locking Tab(L4) in direction of arrow(B) and then separate the Gear Pulley from the Base Main.

8. Gear Loading (Fig. 4-4)

9. Guide Up/Down (Fig. 4-4)

1) Move the Guide Up/Down in direction of arrow(A) as Fig.(A)
2) Push the Locking Tab(L5) down and then lift up the Guide Up/Down to separate it from the Base Main.

Note

When reassembling place the Guide Up/Down as Fig.(C) and move it in direction arrow(B) until it is locked by the Locking Tab(L5). And confirm the Guide Up/Down as Fig.(A)

10. PWB Assembly Loading

Note

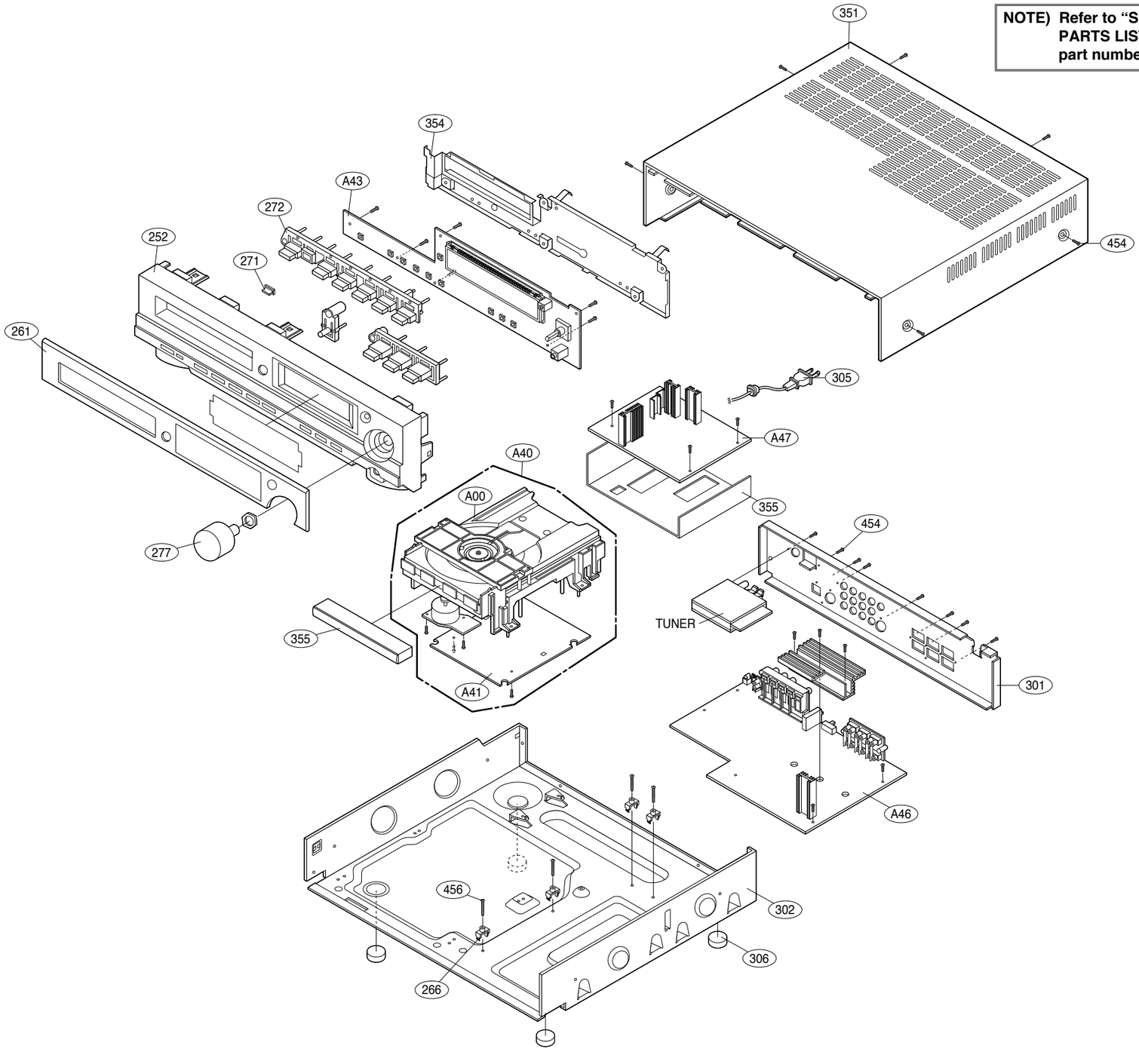
Put the Base Main face down(Bottom Side)

1) Release 2 Screws(S5)
2) Unkool the Loading Motor Connector (C2) from the Hook (H1) on the Base Main.
3) Unlock 2 Locking Tabs(L6) and separate the PWB Assembly Loading from the Base Main.

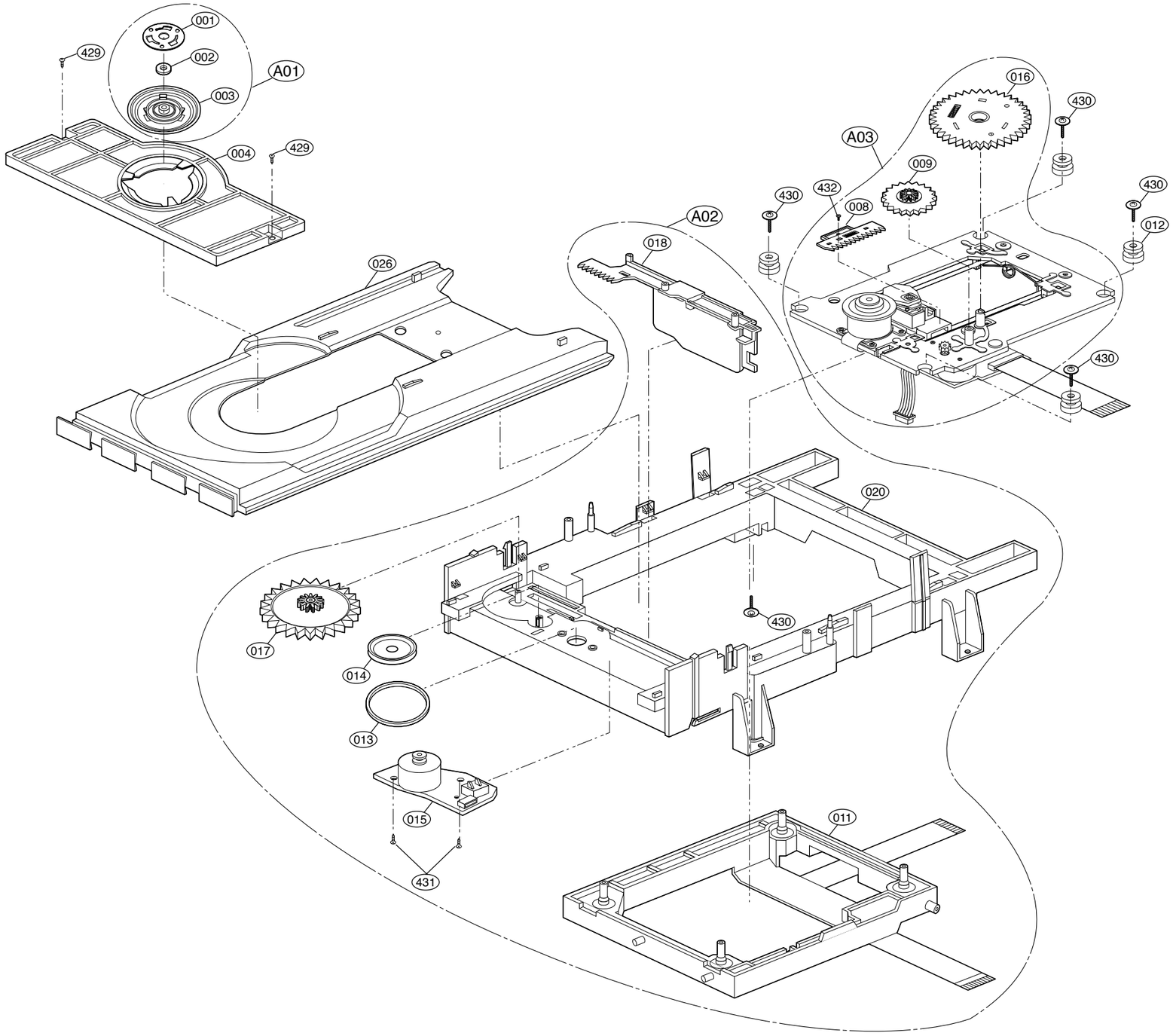
11. Base Main(Fig. 4-4)

SECTION 2-5. EXPLODED VIEWS

• CABINET AND MAIN FRAME SECTION

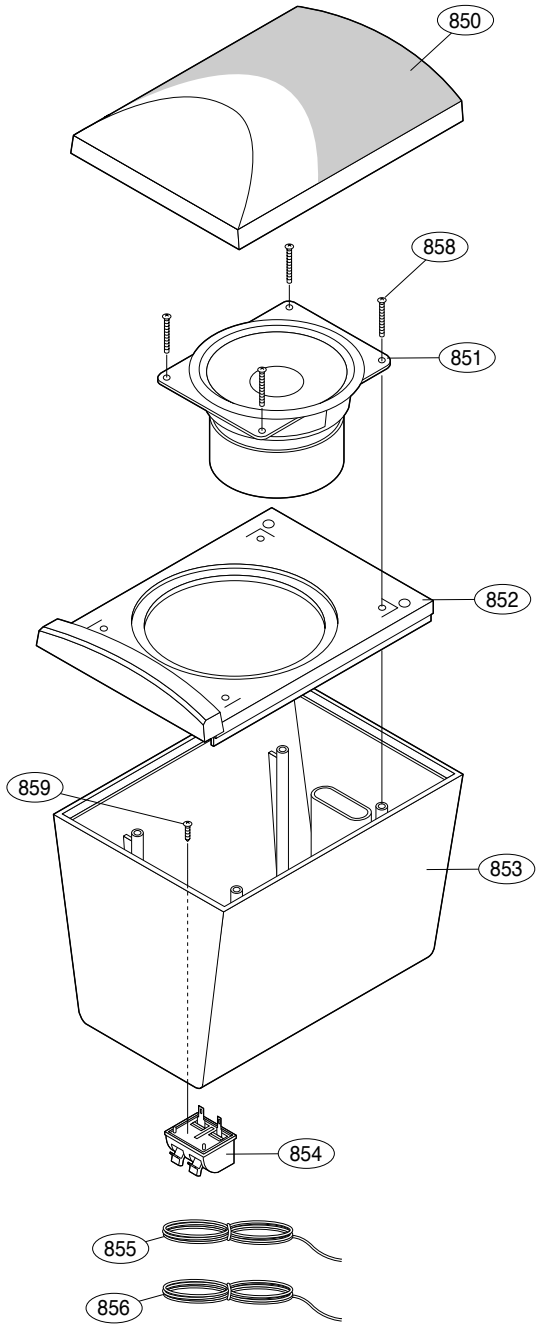


• Deck Mechanism Exploded View



LOCA.NO.	PART NO	DESCRIPTION	SPECIFICATION
A00	6721RJ0354A	DECK ASSEMBLY,VIDEO	DP-5RM MULTI -HZ
A01	4861R-0006B	CLAMP ASSEMBLY	DISC(DP2)-SH
A02	3041R-0057A	BASE ASSEMBLY	MAIN(DP-4R MULTI)-HZ
A03	3041R-D001A	BASE ASSEMBLY	DP5 MULTI (SLED)- HZ
001	3300R-0547A	PLATE	CLAMP
002	5016H-1016B	MAGNET	CLAMP(LDM-R608,10*5,1*1.5T)
003	4860R-0006A	CLAMP	UPPER
004	4930R-0171A	HOLDER	CLAMP
008	4470R-0047A	GEAR	ASSY RACK
009	4470R-0053A	GEAR	MIDDLE
011	3210R-0058A	FRAME	UP/D (MULTI)
012	5040R-0047B	RUBBER	DAMPER(E2,5040H-1054A),CHUNPOO
012A	5040R-0047D	RUBBER	DAMPER(HARDNESS=30),DARKGREEN
013	4400R-0006A	BELT	LOADING
014	4470R-0055A	GEAR	PULLEY
015	6871R-4415E	PWB(PCB) ASSEMBLY,TOTAL	LOADING DP-4R MULTI HZ
016	4470R-0050A	GEAR	ASSY FEED
017	4470R-0056A	GEAR	LOADING
018	4974R-0023A	GUIDE	UP/DOWN
020	3040R-0076A	BASE	MAIN(DP-5RM MULTI)
026	3390R-0012A	TRAY	DISC(DP-5RM MULTI)
429	1SZZR-0012A	SCREW,	B-TITE
430	1SZZH-1003A	SCREW,	+ D2.0 6MM SWRCH16A/NIY 4.5MM
431	1SZZH-1007B	SCREW,DRAWING	+ D2.0 6MM SWRCH16A/ZNBK 4MM 1
432	1SZZR-0011A	SCREW,	MACHINE

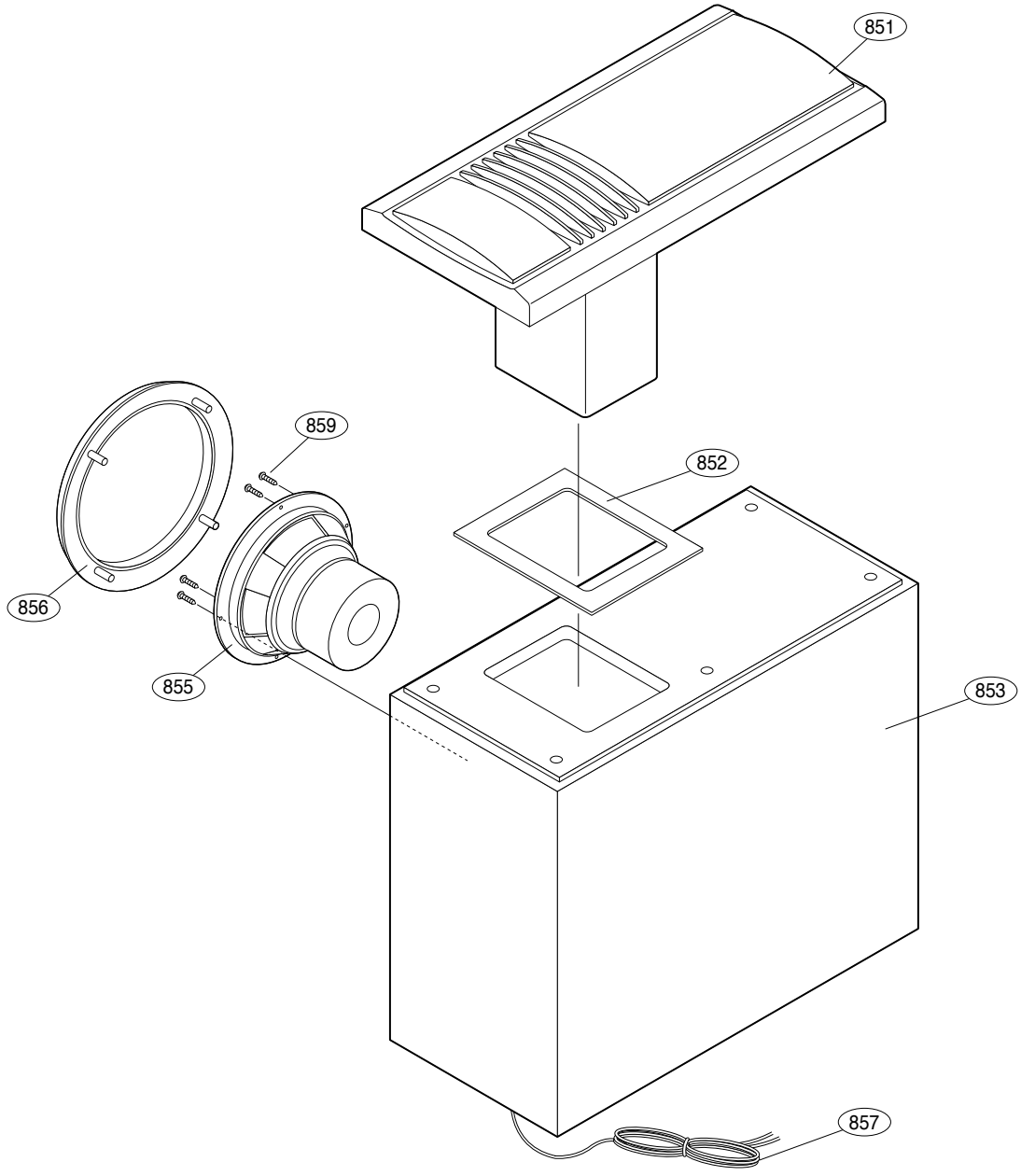
SECTION 2-6. SPEAKER PART



RUN DATE : 09.AUGUST.2002

LOCA.NO.	PART NO.	DESCRIPTON	SPECIFICATION	REMARKS
850	3701RM0022B	NET ASSEMBLY	ASSY FE-3636TE TOSHIBA	
851	6400RMSC02B	SPEAKER,FULLRANGE	MSF-30SB30L-1 SAMMI FULL-RANGE	
852	3720RMF026B	PANEL,FRONT	FRONT FE-3636TE TOSHIBA (FE-36	
853	3110RM0009B	CASE	REAR FE-3636TE TOSHIBA MOLD (F	
854	6871RU4116B	PWB(PCB) ASSEMBLY,SUBSET(AUDIO	FE-3620TE 2P NEW TERMINAL 150M	
855	6871RU4117E	PWB(PCB) ASSEMBLY,SUBSET(AUDIO	FE-3620TE HOUSING +0.16 11C 5M	
856	6871RU4117F	PWB(PCB) ASSEMBLY,SUBSET(AUDIO	FE-3620TE HOUSING +0.16 11C 10	
857	3806RM0006B	DECO	FE-3620TE AIR PLATE	
858	353M025U	SCREW,DRAWING	+ 2 D3.0 L27.0 MSWR3/FZB	
859	353M025G	SCREW	TAPTITE, 3X10 FZMY	

SECTION 2-6. SPEAKER PART



RUN DATE : 09.AUGUST.2002

LOCA.NO.	PART NO.	DESCRIPTON	SPECIFICATION	REMARKS
851	3720RMF027B	PANEL,FRONT	FRONT FE-3636WE	
852	4766RM0006B	FELT	DUCT FE-3620WE 320X10X1T BLACK	
853	3091RMW010D	CABINET ASSEMBLY	ASSY,FE-3620WE BF/BB PB 9T CAB	
855	6400RMSJ02B	SPEAKER,WOOFER	CW-165B30L-1 SAMMI WOOFER 3620	
856	3701RM0005D	NET ASSEMBLY	ASSY, FE-3636WE TOSHIBA	
857	6871RU3091D	PWB(PCB) ASSEMBLY,SUBSET(AUDIO	FE-3620WE HOUSING +AWG 24 2.5M	
859	353M050C	SCREW	BH 3.5X16 FBK	

SECTION 2-7. REPLACEMENT PARTS LIST

Location No.	Part No.	LG PART NO.	Description
001	79097006	3300R-0547A	PLATE CLAMP
002	79097007	5016H-1016B	MAGNET CLAMP(LDM-R608,10*5,1*1.5T)
004	79097553	4930R-0171A	HOLDER CLAMP
008	79097010	4470R-0047A	GEAR ASSY RACK
009	79097011	4470R-0053A	GEAR MIDDLE
012	79097015	5040R-0047B	RUBBER DAMPER(E2,5040H-1054A),CHUNPOO
016	79097016	4470R-0050A	GEAR ASSY FEED
026	79097539	3390R-0012A	TRAY DISC(DP-5RM MULTI)
252	79097542	3721RCM043A	PANEL ASSEMBLY,AUDIO FRONT DA-3636 (TSB)
261	79097543	3790R-P049A	WINDOW,DECO DISPLAY FL(TOSHIBA)
277	79097554	4940RCV033A	KNOB VOLUME(TOSHIBA) VOLUME(TOSHIBA)
⚠ 305	79097567	6410RBHV05B	POWER CORD MP5004A(HS-ST:250MM) VOLEX BS, SD-42HKSB
⚠ 305	79097568	6410RCHZ05B	POWER CORD CE-503/KKJ-1004A(ST-HS:250MM), SD-42HKSE
351	79097537	3090RCP004A	CABINET TOP (DA-5620) TOP (DA-5620)
354	79097538	3301RCH001A	PLATE ASSEMBLY SHIELD FRONT DA-3626
355	79097541	3580RCC025A	DOOR,CASE DVD(TOSHIBA)
430	79097901	1SZZH-1003A	SCREW, +D2.0 6MM SWRCH16A/NIY 4.5MM
432	79097902	1SZZR-0011A	SCREW, MACHINE
801	79097544	3829RDT017D	MANUAL ASSEMBLY,OWNERS OWNERS DA-3636AD JA3GTTS, SD-42HKSE
801	79097545	3829RDT017E	MANUAL ASSEMBLY,OWNERS OWNERS DA-3636AD JA4UTTS, SD-42HKSB
811	79098903	564-017B	PLUG ASSY PHONO CORD 1WAY (YL)
812	79098904	564-018B	PLUG ASSY PHONO CORD 2WAY (RD/WH)
814	79097555	5010R-L002B	ANTENNA,LOOP S0160BL-09 (LS0160BL-X000009-0
820	79097572	6612R-K002D	JACK,SCART DC-213SRA-D KSD DC-213SRA-D KSD
900	79097587	6710RCAG21A	REMOTE CONTROLLER KIE 57KEY KYOUNGIN DA-3636 TOS
012A	79097013	5040R-0047D	RUBBER DAMPER(HARDNESS=30),DARKGREEN
A00	79097588	6721RJ0354A	DECK ASSEMBLY,VIDEO DP-5RM MULTI -HZ
A01	79097334	4861R-0006B	CLAMP ASSEMBLY DISC(DP2)-SH
A02	79097536	3041R-0057A	BASE ASSEMBLY MAIN(DP-4R MULTI)-HZ
A03	79097593	A03 3041R-	BASE ASSEMBLY DP5 MULTI (SLED)- HZ
A40	79097540	3501R-5121B	BOARD ASSEMBLY DVD MODULE RECEIVER 02 P2 LE B
A41	79097589	6871R-5121B	PWB(PCB) ASSEMBLY,TOTAL DVD MODULE RECEIVER 02 P2 LE
A43	79097592	6871R-6807A	PWB(PCB) ASSEMBLY,TOTAL DA-3636 TOSHIBA FRONT 50K/9K,R
A46	79097590	6871R-6308T	PWB(PCB) ASSEMBLY,TOTAL DA-3636 TOSHIBA MAIN TOTAL ASS
A47	79097591	6871R-6316N	PWB(PCB) ASSEMBLY,TOTAL DA-3620 220V NARROW SMPS
BD901	79097507	0DRGS00370A	DIODE,RECTIFIERS GBU4J GENERAL SEMICONDUCTOR BK
C103	79092026	0CH4330K412	CAPACITOR,CHIP[CERAMIC M/L TC 33P 50V J COG 1.6X0.8 R/TP
C104	79092026	0CH4330K412	CAPACITOR,CHIP[CERAMIC M/L TC 33P 50V J COG 1.6X0.8 R/TP
C109	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C201	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C202	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C203	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C204	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C205	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C206	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C207	79098715	0CH1105D942	CAPACITOR,CHIP[CERAMIC M/L HD 1UF 10V Z Y5V(F) 1508 R/TP
C208	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C209	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C210	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C211	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C212	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C212	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C213	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C214	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C215	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C216	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C220	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C223	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C224	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C225	79098715	0CH1105D942	CAPACITOR,CHIP[CERAMIC M/L HD 1UF 10V Z Y5V(F) 1508 R/TP
C226	79098715	0CH1105D942	CAPACITOR,CHIP[CERAMIC M/L HD 10V Z Y5V(F) 1508 R/TP
C227	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C229	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C230	79092013	0CH1103K562	CAPACITOR,FIXED CERAMIC(Temp.c 0.01UF 50V 10% X7R(X) 1608 R/T
C230	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C231	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP

Location No.	Part No.	LG PART NO.	Description
C231	79092020	0CH1472K562	CAPACITOR,CHIP[CERAMIC M/L HD 4700PF 50V K X7R(X) 1608 R/TP
C232	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C233	79092013	0CH1103K562	CAPACITOR,FIXED CERAMIC(Temp.c 0.01UF 50V 10% X7R(X) 1608 R/T
C237	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C238	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C239	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C240	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C242	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C245	79098715	0CH1105D942	CAPACITOR,CHIP[CERAMIC M/L HD 1UF 10V Z Y5V(F) 1508 R/TP
C251	79098715	0CH1105D942	CAPACITOR,CHIP[CERAMIC M/L HD 1UF 10V Z Y5V(F) 1508 R/TP
C252	79092023	0CH4100K112	CHIP CAPA CERAMIC M/L T.C F/S 10P 50V D COG 1.6X0.8 R/TP
C253	79098715	0CH1105D942	CAPACITOR,CHIP[CERAMIC M/L HD 1UF 10V Z Y5V(F) 1508 R/TP
C254	79098715	0CH1105D942	CAPACITOR,CHIP[CERAMIC M/L HD 1UF 10V Z Y5V(F) 1508 R/TP
C258	79098715	0CH1105D942	CAPACITOR,CHIP[CERAMIC M/L HD 1UF 10V Z Y5V(F) 1508 R/TP
C261	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C262	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C263	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C264	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C265	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C272	79097108	0CE4764F638	CAPACITOR,ELECTROLYTIC 47M SRA/SS 16V M FM5 TP(5)
C273	79092018	0CH1225F944	CAPACITOR,FIXED CERAMIC(Temp.c 2.2UF 16V 80%,-20% Y5V(F) 3216
C274	79097108	0CE4764F638	CAPACITOR,ELECTROLYTIC 47M SRA/SS 16V M FM5 TP(5)
C278	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C279	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C280	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C281	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C284	79097108	0CE4764F638	CAPACITOR,ELECTROLYTIC 47M SRA/SS 16V M FM5 TP(5)
C285	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C286	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C287	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C288	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C290	79098720	0CH4180K412	CAPACITOR,CHIP[CERAMIC M/L TC 18P 50V J COG 1.6X0.8 R/TP
C292	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C293	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C294	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C295	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C296	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2A0	79097108	0CE4764F638	CAPACITOR,ELECTROLYTIC 47M SRA/SS 16V M FM5 TP(5)
C2A3	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2A4	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C2A5	79098719	0CH1683F942	CAPACITOR,FIXED CERAMIC(Temp.c 0.068UF 16V 80%,-20% Y5V(F) 16
C2A6	79098714	0CH1102K562	CAPACITOR,FIXED CERAMIC(Temp.c 1000PF 50V 10% X7R(X) 1608 R/T
C2A7	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2A8	79098716	0CH1152K562	APACITOR,FIXED CERAMIC(Temp.c 1500PF 50V 10% X7R(X) 1608 R/T
C2A9	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2B3	79098718	0CH1392K562	CAPACITOR,FIXED CERAMIC(Temp.c 3900PF 50V K Z5U(E) 1608 R/TP
C2B4	79098719	0CH1683F942	CAPACITOR,FIXED CERAMIC(Temp.c 0.068UF 16V 80%,-20% Y5V(F) 16
C2B5	79092019	0CH1333K562	CAPACITOR,CHIP[CERAMIC M/L HD 0.033UF 50V K X7R(X) 1508 R/TP
C2B9	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2C1	79092013	0CH1103K562	CAPACITOR,FIXED CERAMIC(Temp.c 0.01UF 50V 10% X7R(X) 1608 R/T
C2C2	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 10M SRA 16V M FM5 TP(5)
C2C4	79098714	0CH1102K562	CAPACITOR,FIXED CERAMIC(Temp.c 1000PF 50V 10% X7R(X) 1608 R/T
C2C5	79098717	0CH1332K562	CAPACITOR,CHIP[CERAMIC M/L HD 3300P 50V K X7R 1.6X0.8 R/TP
C2C6	79098714	0CH1102K562	CAPACITOR,FIXED CERAMIC(Temp.c 1000PF 50V 10% X7R(X) 1608 R/T
C2C8	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2C9	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C2D0	79097108	0CE4764F638	CAPACITOR,ELECTROLYTIC 47M SRA/SS 16V M FM5 TP(5)
C2D1	79097108	0CE4764F638	CAPACITOR,ELECTROLYTIC 47M SRA/SS 16V M FM5 TP(5)
C2D2	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2D3	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2D4	79097108	0CE4764F638	CAPACITOR,ELECTROLYTIC 47M SRA/SS 16V M FM5 TP(5)
C2D5	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C2D6	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2D7	79098716	0CH1152K562	CAPACITOR,FIXED CERAMIC(Temp.c 1500PF 50V 10% X7R(X) 1608 R/T
C2D9	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2M1	79098705	0CE1074F638	CAPACITOR,ELECTROLYTIC 100U SRA 16V M FM5 TP(5)
C2M2	79092022	0CH1682K562	CAPACITOR,CHIP[CERAMIC M/L HD 6800P 50V K X7R 1.6X0.8 R/TP
C2M3	79092020	0CH1472K562	CAPACITOR,CHIP[CERAMIC M/L HD 4700PF 50V K X7R(X) 1608 R/TP
C2M4	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2M5	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP

Location No.	Part No.	LG PART NO.	Description
C2M6	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2M7	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2M8	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2M9	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2N1	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C2N3	79092017	0CH1223K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.022UF 50V Z Y5V(F) 1508 R/TP
C2N4	79092018	0CH1225F944	CAPACITOR,FIXED CERAMIC(Temp.c 2.2UF 16V 80%,-20% Y5V(F) 3216
C301	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C302	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C302	79092018	0CH1225F944	CAPACITOR,FIXED CERAMIC(Temp.c 2.2UF 16V 80%,-20% Y5V(F) 3216
C303	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C304	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C305	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C306	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C307	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C308	79097108	0CE4764F638	CAPACITOR,ELECTROLYTIC 47M SRA/SS 16V M FM5 TP(5)
C308	79098714	0CH1102K562	CAPACITOR,FIXED CERAMIC(Temp.c 1000PF 50V 10% X7R(X) 1608 R/T
C309	79092018	0CH1225F944	CAPACITOR,FIXED CERAMIC(Temp.c 2.2UF 16V 80%,-20% Y5V(F) 3216
C309	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C310	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C312	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C313	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C314	79098714	0CH1102K562	CAPACITOR,FIXED CERAMIC(Temp.c 1000PF 50V 10% X7R(X) 1608 R/T
C314	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C315	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C317	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C317	79097108	0CE4764F638	CAPACITOR,ELECTROLYTIC 47M SRA/SS 16V M FM5 TP(5)
C318	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C318	79092013	0CH1103K562	CAPACITOR,FIXED CERAMIC(Temp.c 0.01UF 50V 10% X7R(X) 1608 R/T
C319	79092013	0CH1103K562	CAPACITOR,FIXED CERAMIC(Temp.c 0.01UF 50V 10% X7R(X) 1608 R/T
C319	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C320	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C321	79092013	0CH1103K562	CAPACITOR,FIXED CERAMIC(Temp.c 0.01UF 50V 10% X7R(X) 1608 R/T
C322	79092013	0CH1103K562	CAPACITOR,FIXED CERAMIC(Temp.c 0.01UF 50V 10% X7R(X) 1608 R/T
C324	79092021	0CH1473H942	CAPA,CHIP CERAMIC M/L H.D F/S 0.0470UF 25V Z Y5V(F) 1608 R/T
C325	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C326	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C3F1	79092018	0CH1225F944	CAPACITOR,FIXED CERAMIC(Temp.c 2.2UF 16V 80%,-20% Y5V(F) 3216
C3F2	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C501	79097108	0CE4764F638	CAPACITOR,ELECTROLYTIC 47M SRA/SS 16V M FM5 TP(5)
C503	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C504	79097104	0CE1064F638	CAPACITOR,ELECTROLYTIC 10M SRA 16V M FM5 TP(5)
C506	79092018	0CH1225F944	CAPACITOR,FIXED CERAMIC(Temp.c 2.2UF 16V 80%,-20% Y5V(F) 3216
C507	79097108	0CE4764F638	CAPACITOR,ELECTROLYTIC 47M SRA/SS 16V M FM5 TP(5)
C507	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C508	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C509	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 50V Z Y5V(F) 1508 R/TP
C510	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C511	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C512	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C513	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 50V Z Y5V(F) 1508 R/TP
C514	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 50V Z Y5V(F) 1508 R/TP
C515	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 50V Z Y5V(F) 1508 R/TP
C516	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C517	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C518	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C519	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C520	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C521	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C522	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C523	79092018	0CH1225F944	CAPACITOR,FIXED CERAMIC(Temp.c 2.2UF 16V 80%,-20% Y5V(F) 3216
C524	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C525	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C526	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C527	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 50V Z Y5V(F) 1508 R/TP
C528	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C529	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C529	79092016	0CH1222K562	CAPACITOR,CHIP[CERAMIC M/L HD 2200PF 50V K X7R(X) 1608 R/TP
C530	79092016	0CH1222K562	CAPACITOR,CHIP[CERAMIC M/L HD 2200PF 50V K X7R(X) 1608 R/TP
C530	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP

Location No.	Part No.	LG PART NO.	Description
C532	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C533	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C534	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C535	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C536	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C537	79092013	0CH1103K562	CAPACITOR,FIXED CERAMIC(Temp.c 0.01UF 50V 10% X7R(X) 1608 R/T
C538	79092013	0CH1103K562	CAPACITOR,FIXED CERAMIC(Temp.c 0.01UF 50V 10% X7R(X) 1608 R/T
C538	79092018	0CH1225F944	CAPACITOR,FIXED CERAMIC(Temp.c 2.2UF 16V 80%,-20% Y5V(F) 3216
C540	79098720	0CH4180K412	CAPACITOR,CHIP[CERAMIC M/L TC 18P 50V J COG 1.6X0.8 R/TP
C541	79098721	0CH4270K412	CAPACITOR,CHIP[CERAMIC M/L TC 27PF 50V J NP0 1608 R/TP
C542	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C543	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C544	79092018	0CH1225F944	CAPACITOR,FIXED CERAMIC(Temp.c 2.2UF 16V 80%,-20% Y5V(F) 3216
C547	79097121	0CH4101K412	CAPA CERAMIC M/L T.C F/S 100P 50V J COG 1.6X0.8 R/TP
C548	79097121	0CH4101K412	CAPA CERAMIC M/L T.C F/S 100P 50V J COG 100P 50V J COG 1.6X0.8 R/TP
C551	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C552	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C552	79092025	0CH4221K412	CAPACITOR,CHIP[CERAMIC M/L TC 220P 50V J COG 1.6X0.8 R/TP
C553	79092025	0CH4221K412	CAPACITOR,CHIP[CERAMIC M/L TC 220P 50V J COG 1.6X0.8 R/TP
C554	79092025	0CH4221K412	CAPACITOR,CHIP[CERAMIC M/L TC 220P 50V J COG 1.6X0.8 R/TP
C555	79092025	0CH4221K412	CAPACITOR,CHIP[CERAMIC M/L TC 220P 50V J COG 1.6X0.8 R/TP
C561	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C565	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C567	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF50VZY5V(F)1508R/TP
C568	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF50VZY5V(F)1508R/TP
C569	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF50VZY5V(F)1508R/TP
C570	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C575	79097121	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S 100P 50V J COG 1.6X0.8 R/TP
C576	79097121	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S 100P 50V J COG 1.6X0.8 R/TP
C577	79098714	0CH1102K562	CAPACITOR,FIXED CERAMIC(Temp.c 1000PF 50V 10% X7R(X) 1608 R/T
C578	79098714	0CH1102K562	CAPACITOR,FIXED CERAMIC(Temp.c 1000PF 50V 10% X7R(X) 1608 R/T
C579	79097121	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S 100P 50V J COG 1.6X0.8 R/TP
C580	79097121	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S 100P 50V J COG 1.6X0.8 R/TP
C583	79097121	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S 100P 50V J COG 1.6X0.8 R/TP
C584	79097121	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S 100P 50V J COG 1.6X0.8 R/TP
C605	79097121	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S 100P 50V J COG 1.6X0.8 R/TP
C608	79097121	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S 100P 50V J COG 1.6X0.8 R/TP
C612	79097121	0CH4101K412	CHIP CAPA CERAMIC M/L T.C F/S 100P 50V J COG 1.6X0.8 R/TP
C617	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C619	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
C921	79092033	0CQ1031Y519	CAPACITOR,POLYESTER 0.01UF D 630V K PE NI TP
C982	79092014	0CH1104K942	CAPACITOR,CHIP[CERAMIC M/L HD 0.1UF 50V Z Y5V(F) 1508 R/TP
CN901	79097575	6630R-BF03	CONNECTOR (CIRC),BOARD TO BOAR JE121-10 JAE EUN 10PIN 2-57MM
CN902	79097576	6630R-BF03J	CONNECTOR (CIRC),BOARD TO BOAR BOAR JE121-10 JAE EUN 10PIN 2-
CN903	79097557	561-711L	CONNECTOR (CIRC),WAFER GIL-S-12P-S2T2-EF LG CABLE 15P
D006	79097504	0DD133009AB	DIODE,SWITCHING 12
D009	79097504	0DD133009AB	DIODE,SWITCHING 12
D012	79097504	0DD133009AB	DIODE,SWITCHING 12
D101	79097504	0DD133009AB	DIODE,SWITCHING 12
D102	79097504	0DD133009AB	DIODE,SWITCHING 12
D103	79097504	0DD133009AB	DIODE,SWITCHING 12
D104	79097506	0DR102109AA	DIODE,RECTIFIERS RL102-10C TP GULF SEMICONDUCTO
D105	79097504	0DD133009AB	DIODE,SWITCHING 12
D2A1	79096013	0DS202009CA	DIODE,SWITCHING DAN202K TP ROHM KOREA SOT23 80
D2A2	79096013	0DS202009CA	DIODE,SWITCHING DAN202K TP ROHM KOREA SOT23 80
D2A3	79096013	0DS202009CA	DIODE,SWITCHING DAN202K TP ROHM KOREA SOT23 80
D302	79097504	0DD133009AB	DIODE,SWITCHING 12
D902	79096001	0DD010009AC	DIODE EU01W(R-FORM) TP SANKEN
D911	79097504	0DD133009AB	DIODE,SWITCHING 12
D912	79097504	0DD133009AB	DIODE,SWITCHING 12
D920	79096002	0DD010009CA	DIODE,RECTIFIIER 12
D921	79096001	0DD010009AC	DIODE EU01W(R-FORM) TP SANKEN
D922	79096001	0DD010009AC	DIODE EU01W(R-FORM) TP SANKEN
D931	79097552	4921RCE023A	HEAT SINK ASSEMBLY AL EX 30X13X40
D933	79097505	0DD400000AD	DIODE,RECTIFIERS RU4YXLF(015-305) M20 SANKEN
D934	79097509	0DRRE00090A	DIODE,RECTIFIERS SR340 RECTRON BK DO201AD 40V 3
D935	79097509	0DRRE00090A	DIODE,RECTIFIERS SR340 RECTRON BK DO201AD 40V 3
D936	79096001	0DD010009AC	DIODE EU01W(R-FORM) TP SANKEN
D941	79096001	0DD010009AC	DIODE EU01W(R-FORM) TP SANKEN
D942	79096001	0DD010009AC	DIODE EU01W(R-FORM) TP SANKEN

Location No.	Part No.	LG PART NO.	Description
D951	79097508	0DRRE00083A	DIODE,RECTIFIERS SR140 RECTRON TP26 DO41 40V 1A
D952	79096001	0DD010009AC	DIODE EU01W(R-FORM) TP SANKEN
D953	79097510	0DS141489AB	DIODE,SWITCHING 1N4148 TP GRANDE - 20V - - - -
D954	79097510	0DS141489AB	DIODE,SWITCHING 1N4148 TP GRANDE - 20V - - - -
D955	79097510	0DS141489AB	DIODE,SWITCHING 1N4148 TP GRANDE - 20V - - - -
D981	79097504	0DD133009AB	DIODE,SWITCHING 12
F901	79097515	0FT5001B513	FUSE TIME LAG LAG 5A 250V 5.2X20 CY/GL SEMKO
F902	79097595	GIRH200000B	IC,ROHM ICP-N20 T104 TP IC DETACT
F903	79097595	GIRH200000B	IC,ROHM ICP-N20 T104 TP IC DETACT
FB501	79091005	6200HJC102A	DIODE,SWITCHING HB-1M2012-102JT CERATECH TP
FB502	79091005	6200HJC102A	DIODE,SWITCHING HB-1M2012-102JT CERATECH TP
FB503	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
FB504	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
FB505	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
FB506	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
FB507	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
FB508	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
FB509	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
FB601	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
FB602	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
FB603	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
FB604	79091006	6200HJC901A	FILTER(CIRC),EMC CFI06B1H101MF SAMHWA TP 2-5K
FB605	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
FB606	79091006	6200HJC901A	FILTER(CIRC),EMC CFI06B1H101MF SAMHWA TP 2-5K
FB607	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
FB608	79091005	6200HJC102A	FILTER(CIRC), HB-1M2012-102JT CERATECH TP
FB609	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
FB901	79091008	636-004C	COIL BEAD CORE BFS3550R2FD8,R T/P
IC101	79097524	0IMCRSA020B	MICRO CONTROLLER LC876748A-50S7 SANYO 100PIN Q
IC102	79097529	0IPRPJR004A	IC,PERIPHERALS NJM2279M JRC 14PIN SOP R/TP 3I
IC201	79098742	0ILNRHY002B	IC,LINEAR HDC25D811B HYUNDAI 208 QFP TRA
IC201	79097521	0ILNRCI003A	IC,LINEAR CS493264-CLR CIRRUS LOGIC 44 P
IC203	79097518	0IEB121616B	ELITE MEMORY TECHNOLOGY M12L16161A-7T-L 50PIN TSOP TRA
IC205	79097516	0ICB422800B IC,	IC,CRYSTAL SEMICONDUCTOR CS4228A-KSR 28 SSOP R/TP 24BIT
IC206	79094027	GITO704000F	IC,TOSHIBA TC7W04FU
IC206	79097517	0ICB841500B	IC,CRYSTAL SEMICONDUCTOR CS8415A-CZR 28P TSSOP R/TP 96K
IC207	79097519	0IFA742440H	IC,FAIRCHILD 74VHC244MTCX 20 TSSOP R/TP LIN
IC208	79097519	0IFA742440H	FAIRCHILD 74VHC244MTCX 20 TSSOP R/TP LIN
IC2A1	79098741	0ILNRHI003A	IC,LINEAR HD153702TF HITACHI 64 TQFP TRA
IC2A2	79094009	0IJR341400C	IC,JRC NJM3414AM-TE1,3K/REEL. JRC
IC2A4	79098738	0IKE393000G	IC,KEC KIA393F-EL FLP-8 TP DUAL COMPA
IC2M1	79097140	0IFA303200A	IC,FAIRCHILD KA3032 48QFP BK 5CH MOTOR DRIV
IC301	79097523	0ILNRPV001A	IC,LINEAR PS9702B PULSUS 100 QFP TRAY 6C
IC301	79098757	0IXL957210C	IC,XILINX XC9572XL-10TQ100C 100 QFP TRAY
IC305	79097525	0IMMRWI004B	IC,MEMORIES W986432DH-6 WINBOND 86PIN TSOP
IC3F1	79097148	0IMMRAL009A	IC,MEMORIES AT49LV8192A-90TC ATMEL 48PIN T
IC501	79098747	0INS860200A	IC,NATIONAL SEMICONDUCTOR NDV8602 240 VQFP BK MICOM+MPEG
IC501	79097528	0IPRPJR003A	IC,PERIPHERALS NU7312AM JRC 30PIN SOP ST ANAL
IC502	79098744	0IMMRAL012A	IC,MEMORIES AT93C56-10SC(SI)-2.7-8S1 ATMEL
IC502	79097520	0IJR456000B	IC,JRC NJM4560M-TE1-DMP,OP AMP.JRC
IC503	79097522	0ILNRJR005A	IC,LINEAR NJM072M JRC 8PIN SOP TP DUAL J
IC504	79097522	0ILNRJR005A	IC,LINEAR NJM072M JRC 8PIN SOP TP DUAL J
IC505	79097520	0IJR456000B	IC,JRC NJM4560M-TE1-DMP,OP AMP.JRC
IC506	79097522	0ILNRJR005A	IC,LINEAR NJM072M JRC 8PIN SOP TP DUAL J
IC506	79098754	0IPMGRH003A	IC,POWER MANAGEMENT BA18BC0FP-E2 ROHM 3P TO252-3R
IC507	79097522	0ILNRJR005A	IC,LINEAR NJM072M JRC 8PIN SOP TP DUAL J
IC508	79097520	0IJR456000B	IC,JRC NJM4560M-TE1-DMP,OP AMP.JRC
IC710	79097530	0IPRPSG009A	IC,PERIPHERALS STA505 SGS-THOMSON 36P SOP R/T
IC730	79097530	0IPRPSG009A	IC,PERIPHERALS STA505 SGS-THOMSON 36P SOP R/T
IC750	79097530	0IPRPSG009A	IC,PERIPHERALS STA505 SGS-THOMSON 36P SOP R/T
IC901	79097549	4921RCE015A	HEAT SINK ASSEMBLY AL EX 52 X 40 X 17 (PWM IC)
IC902	79097526	0IPMGFA037A	IC,POWER MANAGEMENT FSDH0165 FAIRCHILD 8 DIPH ST P
IC951	79094020	0ISS431000A	IC,SAMSUNG ELECTRONICS KA431AZ (LM431AZ)
IC952	79094020	0ISS431000A	IC,SAMSUNG ELECTRONICS KA431AZ (LM431AZ)
IC961	79097547	4921RCE013A	HEAT SINK ASSEMBLY AL AL EX H=16 X=35 (IC7812)
IC962	79097548	4921RCE014A	HEAT SINK ASSEMBLY AL EX H=16 X=35 (IC7808)
IC963	79097551	4921RCE018A	HEAT SINK ASSEMBLY AL EX H=45 X=21 (IC378R05)
IC964	79097550	4921RCE017A	HEAT SINK ASSEMBLY AL EX H=45 X=21 (IC378R33)
IC964	79097527	0IPMGFA038A	IC,POWER MANAGEMENT FAN1084T-3.3 FAIRCHILD 3P TO-2
IC965	79097546	4921RCE011A	HEAT SINK ASSEMBLY AL EX 55 X 21 3.3V REGULATOR

Location No.	Part No.	LG PART NO.	Description
IC971	79094023	0ISS791200A	SAMSUNG SEMICONDUCTOR KA7912 ST REGULATOR IC
JK001	79097570	6612R-A002A	JACK,HEADPHONE J35G PARK ELEC. ST BLACK
JK201	79097573	6612R-L002A	JACK,FIBER OPTIC TORX178 TOSHIBA
JK601	79097571	6612R-C006Y	JACK,RCA MJ01-13011G DONGBO DA-3620
JK602	79097558	576-005B	JACK,RCA RCA S-440B PARK ELEC- 1P YL
JK700	79097574	6620RCS002A	SOCKET (CIRC),DRAWING PA1220604P DONGBO SPEAKER TERM
L101	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L102	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L103	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L104	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L105	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L106	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L201	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L202	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L203	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L205	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L206	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L207	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L208	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L209	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L210	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L211	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L213	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L214	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L2A1	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L2A2	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L301	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L303	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L304	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L305	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L306	79098771	0RH2200C622	RESISTOR,METAL GLAZED(CHIP) 220 OHM 1 / 16 W 1608 5.00% D
L307	79093021	0RH0102C622	RESISTOR,METAL GLAZED(CHIP) 10 OHM 1 / 16 W 1608 5.00% D
L308	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L310	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L3F1	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L502	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L503	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L504	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L505	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L506	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.00% D
L601	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L602	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L710	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L730	79091005	6200HJC102A	FILTER(CIRC),EMC H HB-1M2012-102JT CERATECH TP
L750	79091005	6200HJC102A	FILTER(CIRC),EMC HB-1M2012-102JT CERATECH TP
L931	79098794	633-088D	COIL,CHOKE CHOCK 20UH KWANGSUNG LEAD CU
L932	79098794	633-088D	COIL,CHOKE CHOCK , ,20UH KWANGSUNG LEAD CU
L933	79098794	633-088D	COIL,CHOKE CHOCK 20UH KWANGSUNG LEAD CU
L951	79098794	633-088D	COIL,CHOKE CHOCK , 20UH KWANGSUNG LEAD CU
LD001	79098732	0DL325319AA	LED 34 TP ROHM GREEN/RED
LF901	79097563	6200JB8008V	FILTER(CIRC),EMC SQE2828 KWANGSUNG BK 30MH
LF902	79097563	6200JB8008V	FILTER(CIRC),EMC SQE2828 KWANGSUNG BK 30MH
P3301	79097582	6630XE00115	CONNECTOR (CIRC),FFC/FPC 04-6232-015-010-000 ELCO 15P 4
P5101	79097585	6631R-E009Y	CONNECTOR ASSEMBLY GIL-S/9073ST 12 PIN 120M/M UL4
P5501	79097580	6630R-FB02W	CONNECTOR (CIRC),FFC/FPC 04-6232-123-008-800 ELCO 26PIN
PC910	79094030	657-063A	SENSOR LTV-820B,PHOTO COUPLER(LITEON)
PC920	79094030	657-063A	SENSOR LTV-820B,PHOTO COUPLER(LITEON)
PC921	79094030	657-063A	SENSOR LTV-820B,PHOTO COUPLER(LITEON)
PMD02	79097580	6630R-FB02W	CONNECTOR (CIRC),FFC/FPC 04-6232-123-008-800 ELCO 26PIN
PMD03	79097579	6630R-FB02K	CONNECTOR (CIRC),FFC/FPC 04-6232-111-008-800 ELCO 14PIN
PN001	79097581	6630R-FB05W	CONNECTOR (CIRC),FFC/FPC 00-6232-023-104-800 ELCO 26PIN
PN002	79097583	6630XE01124	CONNECTOR (CIRC),FFC/FPC 00-6232-024-006-800 ELCO 24P 4
PN101	79097580	6630R-FB02W	CONNECTOR (CIRC),FFC/FPC 04-6232-123-008-800 ELCO 26PIN
PN102	79097584	6630XE01224	CONNECTOR (CIRC),FFC/FPC 04-6232-024-010-000 ELCO 24P 4
PN103	79097580	6630R-FB02W	CONNECTOR (CIRC),FFC/FPC 04-6232-123-008-800 ELCO 26PIN
PN104	79097556	561-686M	CONNECTOR (CIRC),FFC/FPC 00-8370-131-000-800 ELCO 16PIN
PN901	79097577	6630R-BF07	CONNECTOR (CIRC),BOARD TO BOAR 117-A8T-10 JAE EUN 10PIN 2-57M
PN901	79097594	CONNECTOR	CONNECTOR GP390 LGC 3P 3.99 STRAIGHT SN
PN902	79097578	6630R-BF07J	CONNECTOR (CIRC),BOARD TO BOAR 117-A8T-10 JAE EUN 10PIN 2-57M
Q001	79098775	0TR103009AE	TRANSISTOR KRC103M-TP (KRC1206) KEC

Location No.	Part No.	LG PART NO.	Description
Q002	79098776	0TR103009AF	TRANSISTOR KRA103M-TP (KRA2206) KEC
Q101	79098775	0TR103009AE	TRANSISTOR KRC103M-TP (KRC1206) KEC
Q102	79097531	0TR102009AE	TRANSISTOR KRA102M (KRA2205) TP KEC TO
Q2A1	79095002	0TR103709BB	TRANSISTOR 2SA1040K-Q CHIP ROHM-J
Q2A2	79095002	0TR103709BB	TRANSISTOR 2SA1040K-Q CHIP ROHM-J
Q2A5	79098781	0TR388209AA	TRANSISTOR,BIPOLARS KTC3882 SOT-26 TP KEC - -
Q2A6	79098781	0TR388209AA	TRANSISTOR,BIPOLARS KTC3882 SOT-26 TP KEC - -
Q2M1	79098777	0TR124009AP	TRANSISTOR DTC124EK TP ROHM KOREA SOT23 6
Q501	79097531	0TR102009AE	TRANSISTOR KRA102M (KRA2205) TP KEC TO
Q502	79097534	0TR130209AA	TRANSISTOR KTD1302 MUTING TP KEC TO95
Q503	79097534	0TR130209AA	TRANSISTOR KTD1302 MUTING TP KEC TO95
Q504	79097531	0TR102009AE	TRANSISTOR KRA102M (KRA2205) TP KEC TO
Q505	79097534	0TR130209AA	TRANSISTOR KTD1302 MUTING TP KEC TO95
Q507	79097534	0TR130209AA	TRANSISTOR KTD1302 MUTING TP KEC TO95
Q508	79097534	0TR130209AA	TRANSISTOR KTD1302 MUTING TP KEC TO95
Q920	79097532	0TR126809BA	TRANSISTOR,BIPOLARS KTA1271-BL TP KEC
Q950	79097532	0TR126809BA	TRANSISTOR,BIPOLARS KTA1271-BL TP KEC
Q971	79097533	0TR128109AA	TRANSISTOR KTA1281Y TP KEC TO-95L
Q972	79097535	0TR320509AB	TRANSISTOR KTC3205-TP-Y (KTC2239A)KEC
Q973	79095006	0TR319809AC	TRANSISTOR KTC3198-TP-BL (KTC1818)KEC
Q974	79097535	0TR320509AB	TRANSISTOR KTC3205-TP-Y (KTC2239A)KEC
Q975	79097535	0TR320509AB	TRANSISTOR KTC3205-TP-Y (KTC2239A)KEC
Q982	79098776	0TR103009AF	TRANSISTOR KRA103M-TP (KRA2206) KEC
R101	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R102	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R103	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R104	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R105	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R106	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R107	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R108	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R109	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R110	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R111	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R112	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R113	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R114	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R115	79093030	0RH1004C622	RESISTOR,METAL GLAZED(CHIP) 1M OHM 1 / 16 W 1608 5.03% D
R116	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R118	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R119	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R120	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R121	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R124	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R125	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R126	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R127	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R128	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R131	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R132	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R133	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R134	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R135	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1 / 16 W 1608 5.03% D
R136	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R137	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R138	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R139	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R140	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R141	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R142	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R143	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R144	79093021	0RH0102C622	RESISTOR,METAL GLAZED(CHIP) 10 OHM 1 / 16 W 1608 5.03% D
R146	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R147	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R148	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R150	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R151	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R152	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R153	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R154	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D

Location No.	Part No.	LG PART NO.	Description
R155	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R156	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R157	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R158	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R159	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R201	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0OHM1/16W1608 5.00%D
R201	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R202	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R202	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R203	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R203	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R204	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R204	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R206	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R207	79093030	0RH1004C622	RESISTOR,METAL GLAZED(CHIP) 1M OHM 1 / 16 W 1608 5.03% D
R207	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R208	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R209	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R210	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R211	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.00% D
R212	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R213	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R214	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R215	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R216	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R217	79093021	0RH0102C622	RESISTOR,METAL GLAZED(CHIP) 10 OHM 1 / 16 W 1608 5.03% D
R217	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R218	79093044	0RH4700C622	RESISTOR,METAL GLAZED(CHIP) 470 OHM 1 / 16 W 1608 5.03% D
R219	79093025	0RH0752C622	RESISTOR,METAL GLAZED(CHIP) 75 OHM 1 / 16 W 1608 5.03% D
R219	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R220	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R225	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R229	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R230	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R231	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R231	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R232	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R232	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R233	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R234	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R234	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R235	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R236	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R236	79093045	0RH4701C622	RESISTOR,METAL GLAZED(CHIP) 4.7K OHM 1 / 16 W 1608 5.03% D
R237	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R239	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R240	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R241	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R242	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R243	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R244	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R245	79093039	0RH2201C622	RESISTOR,METAL GLAZED(CHIP) 2.2K OHM 1 / 16 W 1608 5.03% D
R248	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R249	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R250	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R251	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R252	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R252	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R253	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R254	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R258	79098773	0RH4702C622	RESISTOR,METAL GLAZED(CHIP) 47K OHM 1 / 16 W 1608 5.03% D
R259	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R260	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R261	79093027	0RH1000C622	RRESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R262	79093027	0RH1000C622	RRESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R263	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R264	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R265	79098773	0RH4702C622	RESISTOR,METAL GLAZED(CHIP) 47K OHM 1 / 16 W 1608 5.03% D
R266	79098773	0RH4702C622	RESISTOR,METAL GLAZED(CHIP) 47K OHM 1 / 16 W 1608 5.03% D
R267	79093031	0RH1201C622	RESISTOR,METAL GLAZED(CHIP) 1.2K OHM 1 / 16 W 1608 5.03% D

Location No.	Part No.	LG PART NO.	Description
R269	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R270	79093057	0RH1500C622	RESISTOR,METAL GLAZED(CHIP) 150 OHM 1 / 16 W 1608 5.03% D
R273	79093034	0RH1501C622	RESISTOR,METAL GLAZED(CHIP) 1.5K OHM 1 / 16 W 1608 5.03% D
R274	79093048	0RH6200C622	RESISTOR,METAL GLAZED(CHIP) 620 OHM 1 / 16 W 1608 5.03% D
R275	79093034	0RH1501C622	RESISTOR,METAL GLAZED(CHIP) 1.5K OHM 1 / 16 W 1608 5.03% D
R276	79093052	0RH9100C622	RESISTOR,METAL GLAZED(CHIP) 910 OHM 1 / 16 W 1608 5.03% D
R277	79093057	0RH1500C622	RESISTOR,METAL GLAZED(CHIP) 150 OHM 1 / 16 W 1608 5.03% D
R278	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R279	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R281	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R281	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R283	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R290	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R291	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R2A1	79093026	0RH0912C622	RESISTOR,METAL GLAZED(CHIP) 91 OHM 1 / 16 W 1608 5.03% D
R2A9	79098774	0RH5602C622	RESISTOR,METAL GLAZED(CHIP) 56K OHM 1 / 16 W 1608 5.03% D
R2B0	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R2B1	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R2B4	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R2B5	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R2B6	79093022	0RH0182C622	RESISTOR,METAL GLAZED(CHIP) 18 OHM 1 / 16 W 1608 5.03% D
R2B7	79093022	0RH0182C622	RESISTOR,METAL GLAZED(CHIP) 18 OHM 1 / 16 W 1608 5.03% D
R2B8	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R2C0	79093047	0RH5601C622	RESISTOR,METAL GLAZED(CHIP) 5.6K OHM 1 / 16 W 1608 5.03% D
R2C4	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R2C5	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R2C6	79093047	0RH5601C622	RESISTOR,METAL GLAZED(CHIP) 5.6K OHM 1 / 16 W 1608 5.03% D
R2C7	79093047	0RH5601C622	RESISTOR,METAL GLAZED(CHIP) 5.6K OHM 1 / 16 W 1608 5.03% D
R2C8	79093047	0RH5601C622	RESISTOR,METAL GLAZED(CHIP) 5.6K OHM 1 / 16 W 1608 5.03% D
R2C9	79093047	0RH5601C622	RESISTOR,METAL GLAZED(CHIP) 5.6K OHM 1 / 16 W 1608 5.03% D
R2D0	79093047	0RH5601C622	RESISTOR,METAL GLAZED(CHIP) 5.6K OHM 1 / 16 W 1608 5.03% D
R2D1	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R2D2	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R2D3	79093047	0RH5601C622	RESISTOR,METAL GLAZED(CHIP) 5.6K OHM 1 / 16 W 1608 5.03% D
R2D4	79093047	0RH5601C622	RESISTOR,METAL GLAZED(CHIP) 5.6K OHM 1 / 16 W 1608 5.03% D
R2D5	79093050	0RH6801C622	RESISTOR,METAL GLAZED(CHIP) 6.8K OHM 1 / 16 W 1608 5.03% D
R2D6	79093026	0RH0912C622	RESISTOR,METAL GLAZED(CHIP) 91 OHM 1 / 16 W 1608 5.03% D
R2E6	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R2E7	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R2E8	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R2F1	79098771	0RH2200C622	RESISTOR,METAL GLAZED(CHIP) 220 OHM 1 / 16 W 1608 5.03% D
R2F2	79098771	0RH2200C622	RESISTOR,METAL GLAZED(CHIP) 220 OHM 1 / 16 W 1608 5.03% D
R2F3	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R2F4	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R2F5	79093040	0RH2202C622	RESISTOR,METAL GLAZED(CHIP) 22K OHM 1 / 16 W 1608 5.03% D
R2F6	79093047	0RH5601C622	RESISTOR,METAL GLAZED(CHIP) 5.6K OHM 1 / 16 W 1608 5.03% D
R2F7	79093047	0RH5601C622	RESISTOR,METAL GLAZED(CHIP) 5.6K OHM 1 / 16 W 1608 5.03% D
R2F8	79093039	0RH2201C622	RESISTOR,METAL GLAZED(CHIP) 2.2K OHM 1 / 16 W 1608 5.03% D
R2F9	79093039	0RH2201C622	RESISTOR,METAL GLAZED(CHIP) 2.2K OHM 1 / 16 W 1608 5.03% D
R2G1	79093039	0RH2201C622	RESISTOR,METAL GLAZED(CHIP) 2.2K OHM 1 / 16 W 1608 5.03% D
R2G2	79093039	0RH2201C622	RESISTOR,METAL GLAZED(CHIP) 2.2K OHM 1 / 16 W 1608 5.03% D
R2G3	79093047	0RH5601C622	RESISTOR,METAL GLAZED(CHIP) 5.6K OHM 1 / 16 W 1608 5.03% D
R2G4	79093047	0RH5601C622	RESISTOR,METAL GLAZED(CHIP) 5.6K OHM 1 / 16 W 1608 5.03% D
R2G7	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R2G9	79093057	0RH1500C622	RESISTOR,METAL GLAZED(CHIP) 150 OHM 1 / 16 W 1608 5.03% D
R2M1	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R2M3	79093051	0RH7501C622	RESISTOR,METAL GLAZED(CHIP) 7.5K OHM 1 / 16 W 1608 5.03% D
R2M5	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R2M6	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R2M7	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R2M8	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R2M9	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R2N0	79098769	0RH1202C422	RESISTOR,METAL GLAZED(CHIP) 12K OHM 1 / 16 W 1608 1.03% D
R2N1	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R2N2	79093047	0RH5601C622	RESISTOR,METAL GLAZED(CHIP) 5.6K OHM 1 / 16 W 1608 5.03% D
R2N3	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R2N4	79093035	0RH1502C622	RESISTOR,METAL GLAZED(CHIP) 15K OHM 1 / 16 W 1608 5.03% D
R2N5	79098769	0RH1202C422	RESISTOR,METAL GLAZED(CHIP) 12K OHM 1 / 16 W 1608 1.03% D
R2N6	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R2N7	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D

Location No.	Part No.	LG PART NO.	Description
R2N8	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R2N9	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R2P0	79093045	0RH4701C622	RESISTOR,METAL GLAZED(CHIP) 4.7K OHM 1 / 16 W 1608 5.03% D
R2P1	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R2P2	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R2P3	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R2P7	79093040	0RH2202C622	RESISTOR,METAL GLAZED(CHIP) 22K OHM 1 / 16 W 1608 5.03% D
R2P8	79093031	0RH1201C622	RESISTOR,METAL GLAZED(CHIP) 1.2K OHM 1 / 16 W 1608 5.03% D
R2P9	79093045	0RH4701C622	RESISTOR,METAL GLAZED(CHIP) 4.7K OHM 1 / 16 W 1608 5.03% D
R2Q1	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R301	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R302	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R303	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R303	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R304	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R305	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R306	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R306	79093045	0RH4701C622	RESISTOR,METAL GLAZED(CHIP) 4.7K OHM 1 / 16 W 1608 5.03% D
R307	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R308	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R308	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R309	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R309	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R310	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R310	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R311	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R312	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R316	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R317	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R317	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R318	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R318	79093045	0RH4701C622	RESISTOR,METAL GLAZED(CHIP) 4.7K OHM 1 / 16 W 1608 5.03% D
R319	79093045	0RH4701C622	RESISTOR,METAL GLAZED(CHIP) 4.7K OHM 1 / 16 W 1608 5.03% D
R319	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R320	79093045	0RH4701C622	RESISTOR,METAL GLAZED(CHIP) 4.7K OHM 1 / 16 W 1608 5.03% D
R321	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) R1K OHM 1 / 16 W 1608 5.03% D
R321	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R322	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R323	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R324	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R325	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R326	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R327	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R328	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R329	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R330	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R331	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R332	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R345	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R346	79093031	0RH1201C622	RESISTOR,METAL GLAZED(CHIP) 1.2K OHM 1 / 16 W 1608 5.03% D
R350	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R351	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R352	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R353	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R354	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R355	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R356	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R357	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R358	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R359	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R360	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R361	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R362	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R363	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R364	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R365	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R366	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R367	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R368	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R3F1	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D

Location No.	Part No.	LG PART NO.	Description
R3F2	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R3F3	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R3F4	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R3F5	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R501	79093041	0RH3300C622	RESISTOR,METAL GLAZED(CHIP) 330 OHM 1 / 16 W 1608 5.03% D
R501	79093042	0RH3301C622	RESISTOR,METAL GLAZED(CHIP) 3.3K OHM 1 / 16 W 1608 5.03% D
R502	79093041	0RH3300C622	RESISTOR,METAL GLAZED(CHIP) 330 OHM 1 / 16 W 1608 5.03% D
R504	79097194	0RH1000C422	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 1.03% D
R505	79093021	0RH0102C622	RESISTOR,METAL GLAZED(CHIP) 10 OHM 1 / 16 W 1608 5.03% D
R505	79093041	0RH3300C622	RESISTOR,METAL GLAZED(CHIP)
R506	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.04% D
R506	79093041	0RH3300C622	RESISTOR,METAL GLAZED(CHIP) 330 OHM 1 /16 W1698 5.00% D
R509	79093041	0RH3300C622	RESISTOR,METAL GLAZED(CHIP) 330 OHM 1 /16 W1698 5.00% D
R510	79093041	0RH3300C622	RESISTOR,METAL GLAZED(CHIP) 330 OHM 1 /16 W1698 5.00% D
R511	79093024	0RH0471C622	RESISTOR,METAL GLAZED(CHIP) 4.7 OHM 1/16 W 1608 5.00% D
R512	79093024	0RH0471C622	RESISTOR,METAL GLAZED(CHIP) 4.7 OHM 1/16 W 1608 5.00% D
R513	79093024	0RH0471C622	RESISTOR,METAL GLAZED(CHIP) 4.7 OHM 1/16 W 1608 5.00% D
R514	79093024	0RH0471C622	RESISTOR,METAL GLAZED(CHIP) 4.7 OHM 1/16 W 1608 5.00% D
R515	79093034	0RH1501C622	RESISTOR,METAL GLAZED(CHIP) 41.5K OHM 1/16 W 1608 5.00% D
R516	79093034	0RH1501C622	RESISTOR,METAL GLAZED(CHIP) 41.5K OHM 1/16 W 1608 5.00% D
R521	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.04% D
R521	79093045	0RH4701C622	RESISTOR,METAL GLAZED(CHIP) 4.7K OHM 1 / 16 W 1608 5.04% D
R522	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.04% D
R522	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.04% D
R523	79093041	0RH3300C622	RESISTOR,METAL GLAZED(CHIP) 330 OHM 1 / 16 W 1608 5.04% D
R523	79093045	0RH4701C622	RESISTOR,METAL GLAZED(CHIP) 4.7K OHM 1 / 16 W 1608 5.04% D
R524	79093041	0RH3300C622	RESISTOR,METAL GLAZED(CHIP) 330 OHM 1 / 16 W 1608 5.04% D
R525	79093023	0RH0222C622	RESISTOR,METAL GLAZED(CHIP) 22 OHM 1 / 16 W 1608 5.04% D
R526	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.04% D
R526	79093044	0RH4700C622	RESISTOR,METAL GLAZED(CHIP) 470 OHM 1 / 16 W 1608 5.04% D
R527	79093044	0RH4700C622	RESISTOR,METAL GLAZED(CHIP) 470 OHM 1 / 16 W 1608 5.04% D
R528	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.04% D
R529	79098773	0RH4702C622	RESISTOR,METAL GLAZED(CHIP) 47K OHM 1 / 16 W 1608 5.04% D
R530	79098773	0RH4702C622	RESISTOR,METAL GLAZED(CHIP) 47K OHM 1 / 16 W 1608 5.04% D
R531	79093049	0RH6800C622	RESISTOR,METAL GLAZED(CHIP) 680 OHM 1 / 16 W 1608 5.04% D
R532	79093049	0RH6800C622	RESISTOR,METAL GLAZED(CHIP) 680 OHM 1 / 16 W 1608 5.04% D
R533	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.04% D
R533	79093049	0RH6800C622	RESISTOR,METAL GLAZED(CHIP) 680 OHM 1 / 16 W 1608 5.04% D
R534	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.04% D
R534	79093049	0RH6800C622	RESISTOR,METAL GLAZED(CHIP) 680 OHM 1 / 16 W 1608 5.04% D
R535	79093031	0RH1201C622	RESISTOR,METAL GLAZED(CHIP) 1.2K OHM 1 / 16 W 1608 5.04% D
R535	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.04% D
R536	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.04% D
R536	79093031	0RH1201C622	RESISTOR,METAL GLAZED(CHIP) 1.2K OHM 1 / 16 W 1608 5.04% D
R537	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.04% D
R537	79093031	0RH1201C622	RESISTOR,METAL GLAZED(CHIP) 1.2K OHM 1 / 16 W 1608 5.04% D
R538	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.04% D
R539	79093057	0RH1500C622	RESISTOR,METAL GLAZED(CHIP) 150 OHM 1 / 16 W 1608 5.04% D
R539	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.04% D
R540	79093057	0RH1500C622	RESISTOR,METAL GLAZED(CHIP) 150 OHM 1 / 16 W 1608 5.04% D
R541	79093057	0RH1500C622	RESISTOR,METAL GLAZED(CHIP) 150 OHM 1 / 16 W 1608 5.04% D
R542	79093057	0RH1500C622	RESISTOR,METAL GLAZED(CHIP) 150 OHM 1 / 16 W 1608 5.04% D
R543	79093021	0RH0102C622	RESISTOR,METAL GLAZED(CHIP) 10 OHM 1 / 16 W 1608 5.04% D
R544	79093021	0RH0102C622	RESISTOR,METAL GLAZED(CHIP) 10 OHM 1 / 16 W 1608 5.04% D
R545	79093021	0RH0102C622	RESISTOR,METAL GLAZED(CHIP) 10 OHM 1 / 16 W 1608 5.04% D
R546	79093021	0RH0102C622	RESISTOR,METAL GLAZED(CHIP) 10 OHM 1 / 16 W 1608 5.04% D
R549	79093046	0RH5600C622	RESISTOR,METAL GLAZED(CHIP) 560 OHM 1 / 16 W 1608 5.03% D
R550	79093046	0RH5600C622	RESISTOR,METAL GLAZED(CHIP) 560 OHM 1 / 16 W 1608 5.03% D
R551	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R552	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R553	79093037	0RH1802C622	RESISTOR,METAL GLAZED(CHIP) 18K OHM 1 / 16 W 1608 5.03% D
R554	79093037	0RH1802C622	RESISTOR,METAL GLAZED(CHIP) 18K OHM 1 / 16 W 1608 5.03% D
R555	79093031	0RH1201C622	RESISTOR,METAL GLAZED(CHIP) 1.2K OHM 1 / 16 W 1608 5.03% D
R556	79093031	0RH1201C622	RESISTOR,METAL GLAZED(CHIP) 1.2K OHM 1 / 16 W 1608 5.03% D
R557	79098773	0RH4702C622	RESISTOR,METAL GLAZED(CHIP) 47K OHM 1 / 16 W 1608 5.03% D
R558	79098773	0RH4702C622	RESISTOR,METAL GLAZED(CHIP) 47K OHM 1 / 16 W 1608 5.03% D
R559	79093032	0RH1202C622	RESISTOR,METAL GLAZED(CHIP) 12K OHM 1 / 16 W 1608 5.03% D
R560	79093032	0RH1202C622	RESISTOR,METAL GLAZED(CHIP) 12K OHM 1 / 16 W 1608 5.03% D
R561	79093032	0RH1202C622	RESISTOR,METAL GLAZED(CHIP) 12K OHM 1 / 16 W 1608 5.03% D
R562	79093032	0RH1202C622	RESISTOR,METAL GLAZED(CHIP) 12K OHM 1 / 16 W 1608 5.03% D

Location No.	Part No.	LG PART NO.	Description
R565	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R566	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R567	79093021	0RH0102C622	RESISTOR,METAL GLAZED(CHIP) 10 OHM 1 / 16 W 1608 5.03% D
R568	79093021	0RH0102C622	RESISTOR,METAL GLAZED(CHIP) 10 OHM 1 / 16 W 1608 5.03% D
R570	79093046	0RH5600C622	RESISTOR,METAL GLAZED(CHIP) 560 OHM 1 / 16 W 1608 5.03% D
R571	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R572	79093037	0RH1802C622	RESISTOR,METAL GLAZED(CHIP) 18K OHM 1 / 16 W 1608 5.03% D
R573	79093031	0RH1201C622	RESISTOR,METAL GLAZED(CHIP) 1.2K OHM 1 / 16 W 1608 5.03% D
R574	79098773	0RH4702C622	RESISTOR,METAL GLAZED(CHIP) 47K OHM 1 / 16 W 1608 5.03% D
R575	79093032	0RH1202C622	RESISTOR,METAL GLAZED(CHIP) 12K OHM 1 / 16 W 1608 5.03% D
R576	79093032	0RH1202C622	RESISTOR,METAL GLAZED(CHIP) 12K OHM 1 / 16 W 1608 5.03% D
R578	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R579	79093041	0RH3300C622	RESISTOR,METAL GLAZED(CHIP) 330 OHM 1 / 16 W 1608 5.03% D
R580	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R581	79093027	0RH1000C622	RESISTOR,METAL GLAZED(CHIP) 100 OHM 1 / 16 W 1608 5.03% D
R584	79093037	0RH1802C622	RESISTOR,METAL GLAZED(CHIP) 18K OHM 1 / 16 W 1608 5.03% D
R585	79093037	0RH1802C622	RESISTOR,METAL GLAZED(CHIP) 18K OHM 1 / 16 W 1608 5.03% D
R586	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R587	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R588	79093025	0RH0752C622	RESISTOR,METAL GLAZED(CHIP) 75 OHM 1 / 16 W 1608 5.03% D
R589	79093025	0RH0752C622	RESISTOR,METAL GLAZED(CHIP) 75 OHM 1 / 16 W 1608 5.03% D
R590	79093025	0RH0752C622	RESISTOR,METAL GLAZED(CHIP) 75 OHM 1 / 16 W 1608 5.03% D
R591	79093025	0RH0752C622	RESISTOR,METAL GLAZED(CHIP) 75 OHM 1 / 16 W 1608 5.03% D
R597	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R598	79093021	0RH0102C622	RESISTOR,METAL GLAZED(CHIP) 10 OHM 1 / 16 W 1608 5.03% D
R599	79093021	0RH0102C622	RESISTOR,METAL GLAZED(CHIP) 10 OHM 1 / 16 W 1608 5.03% D
R603	79093025	0RH0752C622	RESISTOR,METAL GLAZED(CHIP) 75 OHM 1 / 16 W 1608 5.03% D
R604	79093025	0RH0752C622	RESISTOR,METAL GLAZED(CHIP) 75 OHM 1 / 16 W 1608 5.03% D
R605	79093025	0RH0752C622	RESISTOR,METAL GLAZED(CHIP) 75 OHM 1 / 16 W 1608 5.03% D
R606	79093025	0RH0752C622	RESISTOR,METAL GLAZED(CHIP) 75 OHM 1 / 16 W 1608 5.03% D
R607	79093025	0RH0752C622	RESISTOR,METAL GLAZED(CHIP) 75 OHM 1 / 16 W 1608 5.03% D
R608	79093028	0RH1001C622	RESISTOR,METAL GLAZED(CHIP) 1K OHM 1 / 16 W 1608 5.03% D
R612	79098771	0RH2200C622	RESISTOR,METAL GLAZED(CHIP) 220 OHM 1 / 16 W 1608 5.03% D
R711	79098771	0RH2200C622	RESISTOR,METAL GLAZED(CHIP) 220 OHM 1 / 16 W 1608 5.03% D
R713	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R714	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R731	79098771	0RH2200C622	RESISTOR,METAL GLAZED(CHIP) 220 OHM 1 / 16 W 1608 5.03% D
R733	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R734	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R751	79098771	0RH2200C622	RESISTOR,METAL GLAZED(CHIP) 220 OHM 1 / 16 W 1608 5.03% D
R753	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R754	79093029	0RH1002C622	RESISTOR,METAL GLAZED(CHIP) 10K OHM 1 / 16 W 1608 5.03% D
R792	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R793	79093020	0RH0000C622	RESISTOR,METAL GLAZED(CHIP) 0 OHM 1 / 16 W 1608 5.03% D
R900	79093009	0RD1504H632	RESISTOR,FIXED CARBON FILM 1.5M OHM 1/2 W 5.00% MF13
R923	79093055	0RS5602K619	RESISTOR,FIXED METAL OXIDE FIL 56K OHM 2 W 5.03% TR
SW001	79097338	556-219B	SWITCH,TACT THVV502GAA POSTECH DC 12 V 8-
SW002	79097338	556-219B	SWITCH,TACT THVV502GAA POSTECH DC 12 V 8-
SW003	79097338	556-219B	SWITCH,TACT THVV502GAA POSTECH DC 12 V 8-
SW004	79097338	556-219B	SWITCH,TACT THVV502GAA POSTECH DC 12 V 8-
SW005	79097338	556-219B	SWITCH,TACT THVV502GAA POSTECH DC 12 V 8-
SW006	79097338	556-219B	SWITCH,TACT THVV502GAA POSTECH DC 12 V 8-
SW007	79097338	556-219B	SWITCH,TACT THVV502GAA POSTECH DC 12 V 8-
SW008	79097338	556-219B	SWITCH,TACT THVV502GAA POSTECH DC 12 V 8-
SW009	79097338	556-219B	SWITCH,TACT THVV502GAA POSTECH DC 12 V 8-
SW010	79097338	556-219B	SWITCH,TACT THVV502GAA POSTECH DC 12 V 8-
SW101	79097338	556-219B	SWITCH,TACT THVV502GAA POSTECH DC 12 V 8-
SW102	79097569	6600R-SH02A	SWITCH,SLIDE SKQ-23D15-G5-NA LUPFUNG DC 33
SW601	79098797	6600R-SH18A	SWITCH,TACT CSS-4206 CHANG SHIN NON DC 33V
⚠ T901	79097561	6170RNGW18A	TRANSFORMER,SMPS (COIL) EER-5345 KWANGSUNG DA-5620
⚠ T902	79097562	6170RNGW19A	TRANSFORMER,SMPS (COIL) EE-1927 KWANGSUNG DA-5620
TH901	79097566	6322RC0001A	THERMISTOR,NTC NTPDB5R0LD7B0 MURATA - 0.18
TUNER	79097586	6700R-DK05B	TUNER 6700R-DK05B KST-MB114MA1-60(7G,RDS,BPF,CE,
VR001	79097560	6110S-ET01A	VOLUME,ENCODER EC16B242040M ALPS - D=16 V 27
VR901	79097559	6102R2A002A	VARISTOR SVC471D-10A BL 7 SAMHWA 470V 3
X101	79097565	6212AA2983C	RESONATOR,CRYSTAL HC-49S BUBANG 9.8304MHZ +/- 33
X201	79097347	6202R-BM04C	RESONATOR,CRYSTAL HC-49/S BUBANG 33-8688MHZ 8
X201	79097564	6204R-HK01C	OSCILLATOR,STD KXO-210 BUBANG AXIAL 12.291MHZ
X501	79097346	6202R-BL06C	RESONATOR,CRYSTAL HC-49/S BUBANG 27MHZ 20PPM 4
ZD201	79097511	0DZ270009BC	DIODE,ZENER GDZJ2.7A TP GRANDE DO34 503MW

Location No.	Part No.	LG PART NO.	Description
ZD601	79097514	0DZ510009AH	DIODE,ZENER GDZJ5.1B TP GRANDE DO-34 503MW
ZD910	79097513	0DZ470009AD	DIODE,ZENER GDZJ4.7B TP GRANDE DO34 503MW
ZD971	79097512	0DZ330009AR	DIODE,ZENERS GDZJ33D GRANDE TP52 - - 33V 8U
ZD972	79097514	0DZ510009AH	DIODE,ZENER GDZJ5.1B TP GRANDE DO-34 503MW
ZD973	79097514	0DZ510009AH	DIODE,ZENER GDZJ5.1B TP GRANDE DO-34 503MW
ZD974	79097513	0DZ470009AD	DIODE,ZENER GDZJ4.7B TP GRANDE DO34 503MW
ZD981	79097513	0DZ470009AD	DIODE,ZENER GDZJ4.7B TP GRANDE DO34 503MW

TOSHIBA CORPORATION
1-1, SHIBAURA 1−CHOME,MINATO−KU, TOKYO 105 − 8001,JAPAN

TOSHIBA

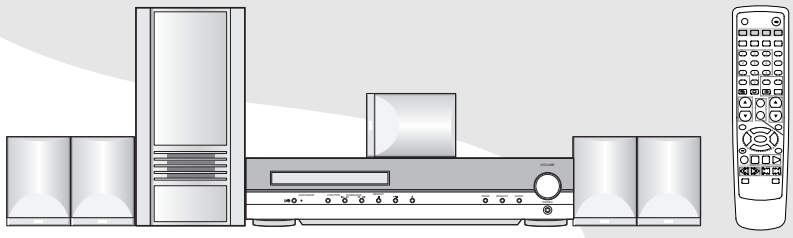
FILE NO. 810-200217

SERVICE MANUAL

DVD RECEIVER

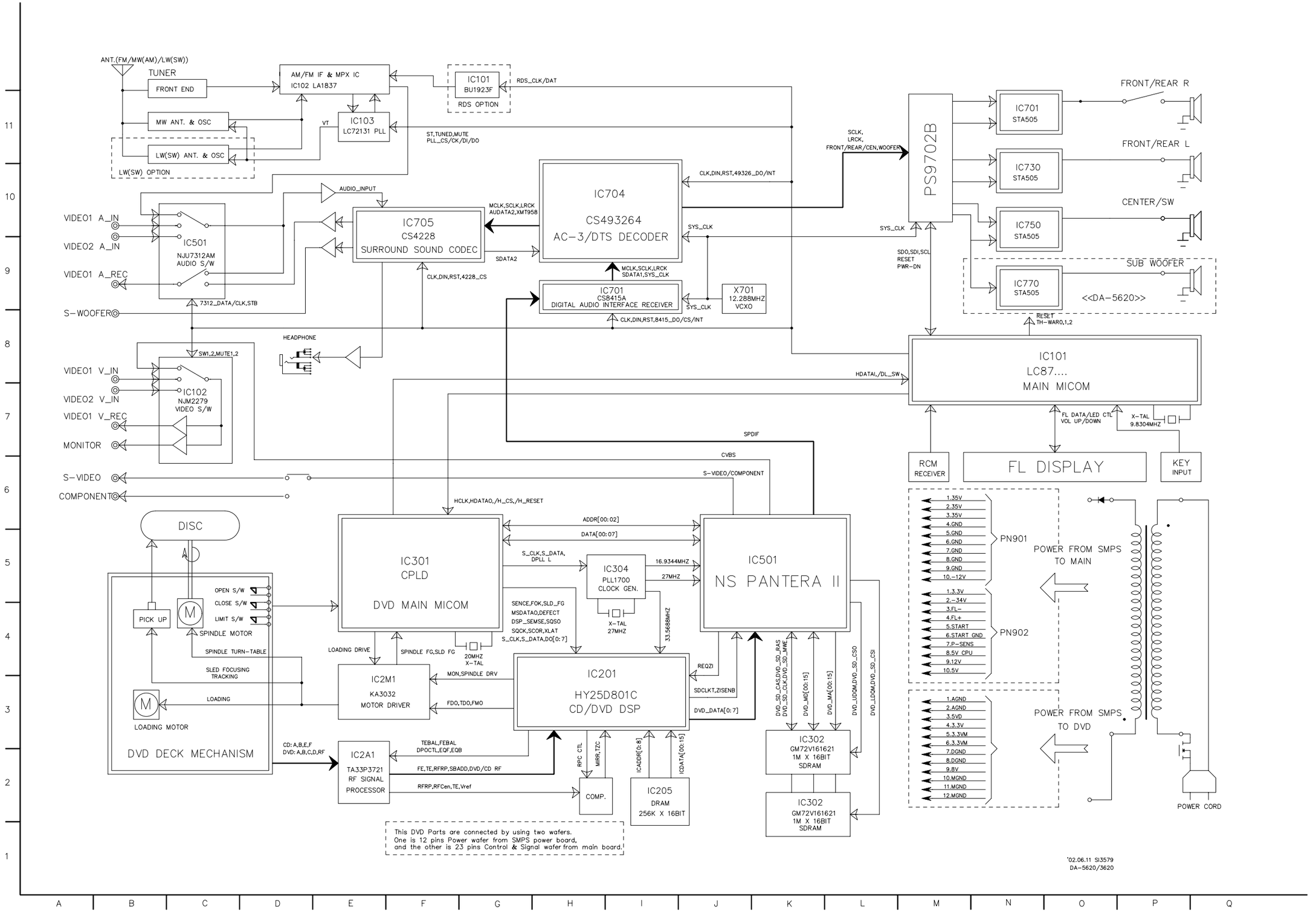
SD-42HKSB

SD-42HKSE



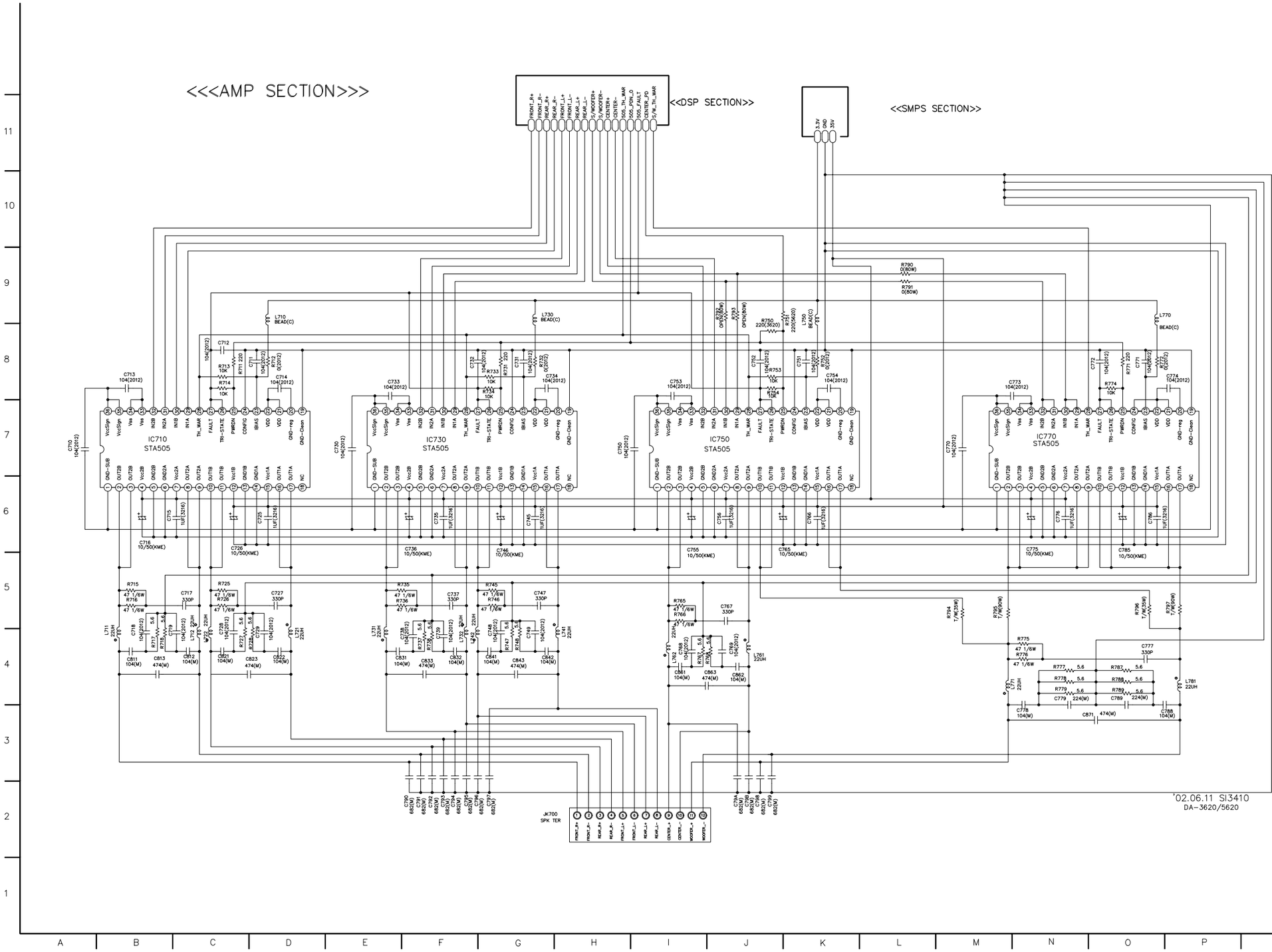
OCT., 2002

BLOCK DIAGRAM



SHEMATIC DIAGRAMS

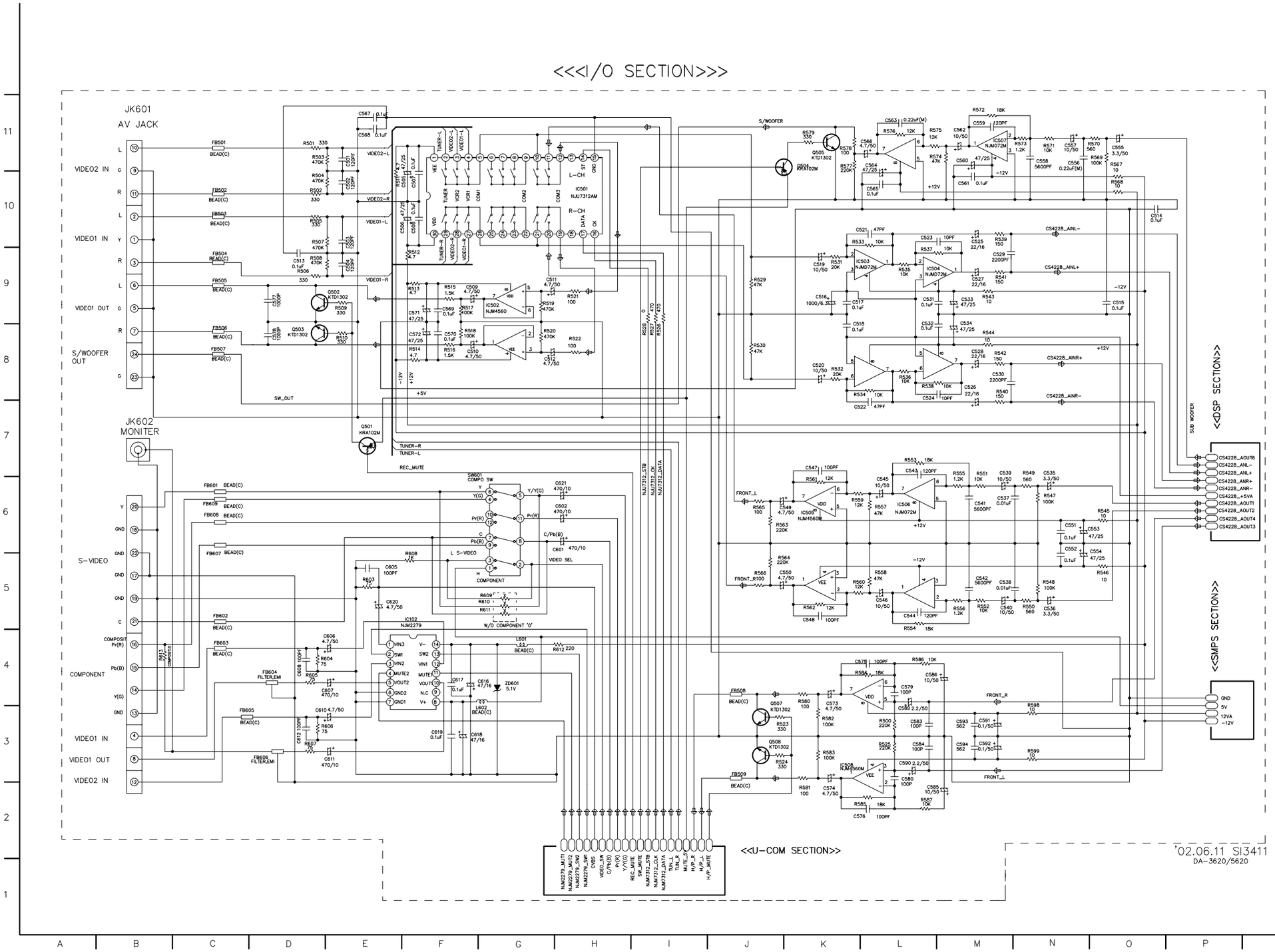
• AMP SCHEMATIC DIAGRAM



LOCATION GUIDE

C710	A7	C842	G4
C711	D8	C843	G4
C712	C8	C861	I4
C713	B8	C862	J4
C714	D8	C863	I4
C715	B6	C871	N3
C716	B6	GND	K11
C717	C5	IC710	B7
C718	B4	IC730	F7
C719	B4	IC750	J7
C725	D6	IC770	N7
C726	C6	JK700	G2
C727	D5	L710	D9
C728	C4	L711	B4
C729	D4	L712	C4
C730	E7	L721	D4
C731	G8	L722	C4
C732	F8	L730	G9
C733	E8	L731	E4
C734	G8	L732	F4
C735	F6	L741	H4
C736	F6	L742	F4
C737	F5	L750	K8
C738	F4	L761	J4
C739	F4	L762	I4
C745	G6	L770	O9
C746	G6	L771	N4
C747	G5	L781	P4
C748	G4	R711	C8
C749	G4	R712	D8
C750	H7	R713	C8
C751	K8	R714	C8
C752	J8	R715	B5
C753	I8	R716	B5
C754	K8	R717	B4
C755	I6	R718	B4
C756	J6	R725	C5
C765	J6	R726	C5
C766	K6	R727	C4
C767	J5	R728	D4
C768	I4	R731	G8
C769	J4	R732	G8
C770	M7	R733	G8
C771	O8	R734	G8
C772	O8	R735	E5
C773	M8	R736	E5
C774	P8	R737	F4
C775	N6	R738	F4
C776	N6	R745	G5
C777	O4	R746	G5
C778	N3	R747	G4
C779	N4	R748	G4
C785	O6	R750	J9
C786	O6	R751	K8
C788	O3	R752	K8
C789	O4	R753	J8
C790	F2	R754	J8
C791	F2	R765	I5
C792	F2	R766	I5
C793	F2	R767	I4
C794	F2	R768	J4
C795	F2	R771	O8
C796	G2	R772	O8
C797	G2	R774	O8
C798	J2	R775	N4
C799	J2	R776	N4
C79A	J2	R777	N4
C79B	J2	R778	N4
C811	B4	R779	N4
C812	C4	R787	O4
C813	B4	R788	O4
C821	C4	R789	O4
C822	D4	R790	L9
C823	C4	R791	L9
C831	E4	R792	J9
C832	F4	R793	J9
C833	F4	R794	M5
C841	G4	R795	M5
R797	P5	R796	O5

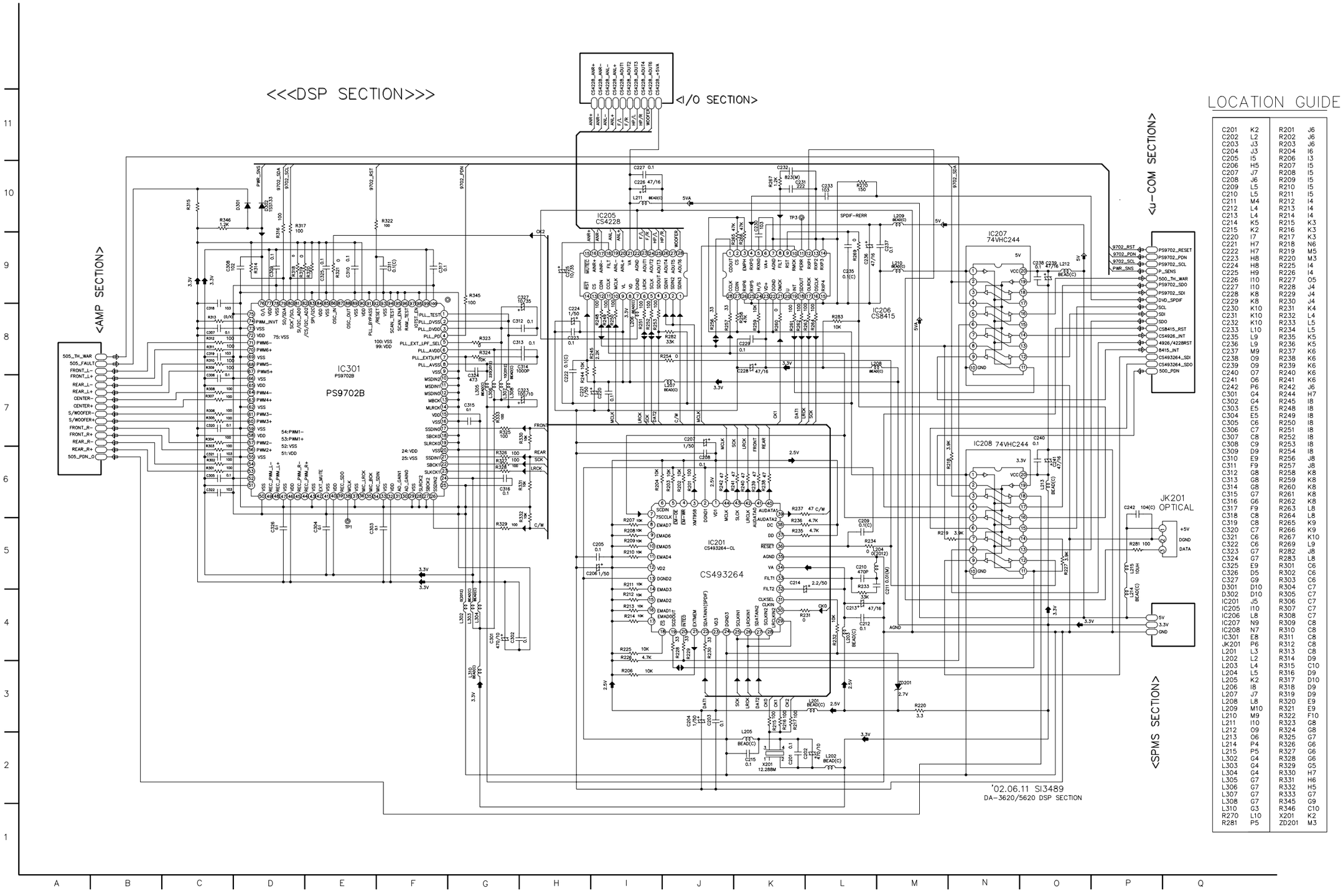
• I/O SCHEMATIC DIAGRAM



LOCATION GUIDE

C501	E11	FB502	C10	R570	O11
C502	E10	FB503	C10	R571	N11
C503	E9	FB504	C9	R572	M11
C504	E9	FB505	C9	R573	N11
C505	F10	FB506	C8	R574	L11
C506	F10	FB507	C8	R575	L11
C507	F10	FB508	J4	R576	L11
C508	F10	FB509	J3	R577	K11
C509	F9	FB601	C6	R578	K11
C510	F8	FB602	C5	R579	K11
C511	G9	FB603	C4	R580	K4
C512	G8	FB604	D4	R581	K2
C513	D9	FB605	C3	R582	K3
C514	O10	FB606	D3	R583	K3
C515	O9	FB607	C5	R584	K4
C516	K9	FB608	C6	R585	K2
C517	K9	FB609	E6	R586	L4
C518	K8	IC501	H10	R587	L2
C519	K9	IC502	G9	R598	N3
C520	K8	IC503	L9	R599	N3
C521	L10	IC504	L9	R603	E5
C522	K7	IC505	K6	R604	D4
C523	L10	IC506	L6	R605	D4
C524	L8	IC507	M11	R606	E3
C525	M10	IC508	K3	R607	D3
C526	M8	JK601	B11	R608	F5
C527	M9	JK602	B7	R609	G5
C528	M8	L601	G4	R610	G5
C529	M9	L602	G3	R611	G5
C530	M8	Q501	E7	R612	H4
C531	L9	Q502	E9	R613	B4
C532	L8	Q503	D8	SW601	F7
C533	M9	Q504	K11	ZD601	G4
C534	M8	Q505	K11		
C535	N7	Q507	J4		
C536	N5	Q508	J3		
C537	M6	R500	L3		
C538	M5	R501	D11		
C539	M7	R502	D10		
C540	M6	R503	D11		
C541	M6	R504	D10		
C542	M5	R505	D10		
C543	L7	R506	D9		
C544	L5	R507	D10		
C545	L6	R508	D9		
C546	L5	R509	E9		
C547	K7	R510	E8		
C548	K5	R511	F10		
C549	K6	R512	F9		
C550	K5	R513	F9		
C551	N6	R514	F8		
C552	N6	R515	F9		
C553	O6	R516	F8		
C554	O6	R517	F9		
C555	O11	R518	F8		
C556	N11	R519	G9		
C557	N11	R520	G8		
C558	N11	R521	H9		
C559	M11	R522	H8		
C560	M11	R523	J3		
C561	M10	R524	J3		
C562	M11	R525	L3		
C563	L11	R526	I8		
C564	L11	R527	I8		
C565	L10	R528	I8		
C566	L11	R529	J9		
C567	E11	R530	J8		
C568	E11	R531	K9		
C569	F9	R532	K8		
C570	F8	R533	K10		
C571	F9	R534	K8		
C572	F8	R535	L9		
C573	K4	R536	L8		
C574	K2	R537	L9		
C575	K4	R538	L8		
C576	K2	R539	M10		
C577	D9	R540	M8		
C578	D8	R541	M9		
C579	L4	R542	M8		
C580	L3	R543	M9		
C583	L3	R544	M8		
C584	L3	R545	O6		
C585	L2	R546	O5		
C586	L4	R547	N6		
C589	L3	R548	N5		
C590	L3	R549	N7		
C591	M3	R550	N5		
C592	M3	R551	M7		
C593	M3	R552	M5		
C594	M3	R553	L7		
C601	H6	R554	L4		
C602	H6	R555	M7		
C605	E5	R556	M5		
C606	E4	R557	L6		
C607	E4	R558	L5		
C608	D4	R559	K6		
C610	D3	R560	K5		
C611	E3	R561	K6		
C612	D3	R562	K5		
C616	G4	R563	J6		
C617	F4	R564	J5		
C618	F3	R565	J6		
C619	F3	R566	J5		
C620	E5	R567	O11		
C621	H6	R568	O10		
FB501	C11	R569	O11		

• DSP(DIGITAL AUDIO PROCESSING) SCHEMATIC DIAGRAM



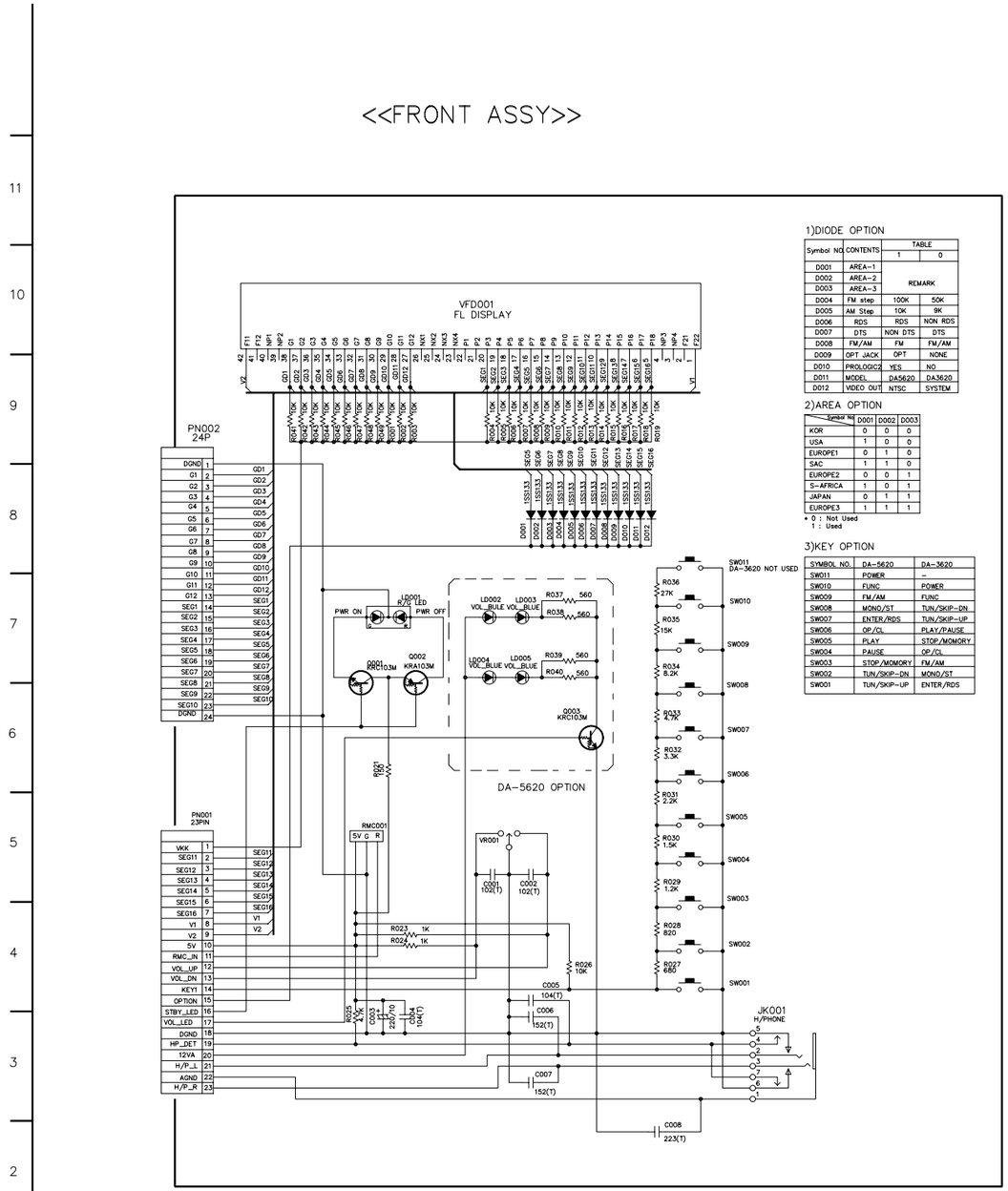
LOCATION GUIDE

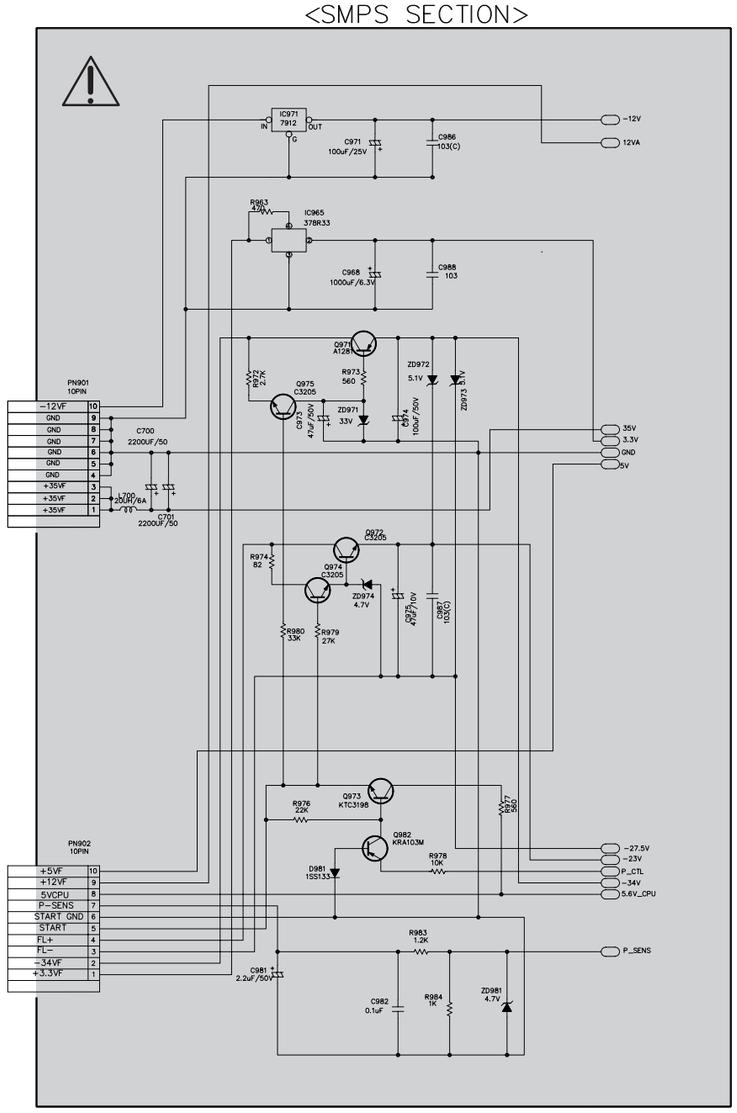
C201	K2	R201	J6
C202	L2	R202	J6
C203	J3	R203	J6
C204	J3	R204	I6
C205	I5	R206	I3
C206	H5	R207	I5
C207	J7	R208	I5
C208	J6	R209	I5
C209	L5	R210	I5
C210	L5	R211	I5
C211	M4	R212	I4
C212	L4	R213	I4
C213	L4	R214	I4
C214	K5	R215	K3
C215	K2	R216	K3
C220	I7	R217	K3
C221	H7	R218	N6
C222	H7	R219	M5
C223	H8	R220	M3
C224	H8	R225	I4
C225	H9	R226	I4
C226	I10	R227	O5
C227	I10	R228	J4
C228	K8	R229	J4
C229	K8	R230	J4
C230	K10	R231	K4
C231	K10	R232	L4
C232	K10	R233	L5
C233	L10	R234	L5
C235	L9	R235	K5
C236	L9	R236	K5
C237	M9	R237	K6
C238	O9	R238	K6
C239	O9	R239	K6
C240	O7	R240	K6
C242	P6	R241	K6
C301	G4	R242	J6
C302	G4	R244	H7
C303	E5	R245	I8
C304	E5	R248	I8
C305	C6	R249	I8
C306	C7	R250	I8
C307	C8	R251	I8
C308	C9	R252	I8
C309	D9	R253	I8
C310	E9	R254	I8
C311	F9	R256	J8
C312	G8	R257	J8
C313	G8	R258	K8
C314	G8	R259	K8
C315	G7	R260	K8
C316	G6	R261	K8
C317	F9	R262	K8
C318	C8	R263	L8
C319	C8	R264	L8
C320	C7	R265	K9
C321	C6	R266	K9
C322	C6	R267	K10
C323	G7	R269	L9
C324	G7	R282	J8
C325	E9	R283	L8
C326	D5	R301	C6
C327	G9	R302	C6
D301	D10	R303	C6
D302	D10	R304	C7
IC201	J5	R305	C7
IC205	I10	R306	C7
IC206	L8	R307	C7
IC207	N9	R308	C7
IC208	N7	R309	C8
IC301	E8	R310	C8
JK201	P6	R311	C8
L201	L3	R312	C8
L202	L2	R313	C8
L203	L4	R314	D9
L204	L5	R315	C10
L205	K2	R316	D9
L206	I8	R317	D10
L207	J7	R318	D9
L208	L8	R319	D9
L209	M10	R320	E9
L210	M9	R321	E9
L211	I10	R322	F10
L212	O9	R323	G8
L213	O6	R324	G8
L214	P4	R325	G7
L215	P5	R326	G6
L302	G4	R327	G6
L303	G4	R328	G6
L304	G4	R329	G5
L305	G7	R330	H7
L306	G7	R331	H6
L307	G7	R332	H5
L308	G7	R333	G7
L310	G3	R345	G9
R270	L10	R346	C10
R281	P5	X201	K2
		ZD201	M3

• FRONT & POWER SCHEMATIC DIAGRAM

NOTE: Warning

⚠ Parts that are shaded are critical With respect to risk of fire or electrical shock.





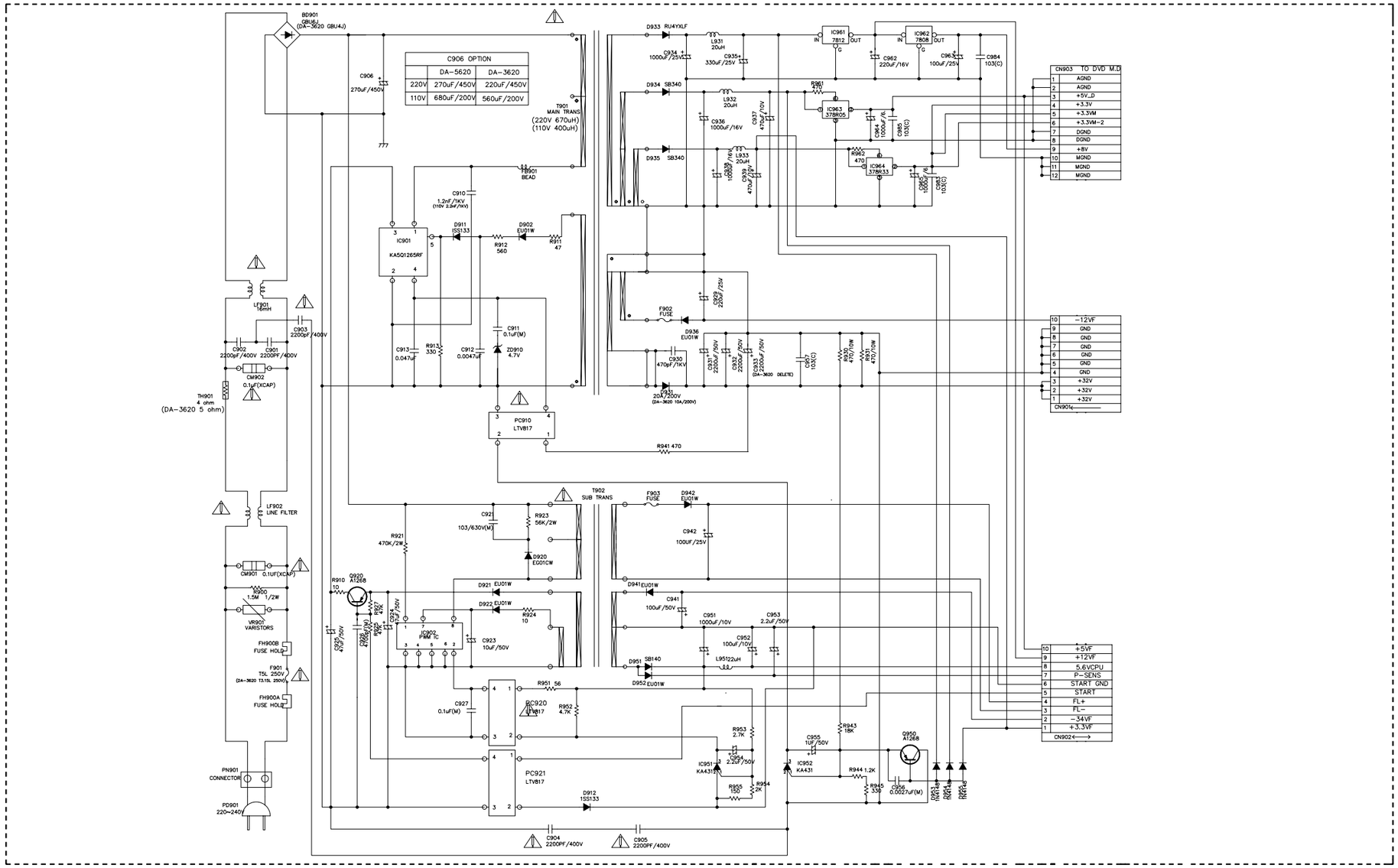
LOCATION GUIDE

C001	E5	R028	F4
C002	E5	R029	F5
C003	D3	R030	F5
C004	D3	R031	F5
C005	E4	R032	F6
C006	E3	R033	F6
C007	E3	R034	F7
C008	F2	R035	F7
C700	K8	R036	F7
C701	K7	R037	E7
C968	M9	R038	E7
C971	M10	R039	E7
C973	L8	R040	E7
C974	M8	R041	C9
C975	M6	R042	C9
C981	L3	R043	C9
C982	M3	R044	C9
C986	N10	R045	C9
C987	N6	R046	C9
C988	N9	R047	D9
D001	E8	R048	D9
D002	E8	R049	D9
D003	E8	R963	L10
D004	E8	R972	L8
D005	E8	R973	M8
D006	F8	R974	L7
D007	F8	R976	L5
D008	F8	R977	N5
D009	F8	R978	N4
D010	F8	R979	M6
D011	F8	R980	L6
D012	F8	R983	M3
D981	M4	R984	N3
GD1	C8	RMC001	D5
GD1	C9	SEG1	C7
GD10	C8	SEG1	E9
GD10	D9	SEG10	C6
GD11	C7	SEG10	F9
GD11	D9	SEG10	F8
GD12	C7	SEG11	C5
GD12	D9	SEG11	F9
GD2	C8	SEG11	F8
GD2	C9	SEG12	C5
GD3	C8	SEG12	F9
GD3	C9	SEG12	F8
GD4	C8	SEG13	C5
GD4	C9	SEG13	F9
GD5	C8	SEG13	F8
GD5	C9	SEG14	C5
GD6	C8	SEG14	F9
GD6	C9	SEG14	F8
GD7	C8	SEG15	C5
GD7	C9	SEG15	F9
GD8	C8	SEG15	F8
GD8	D9	SEG16	C4
GD9	C8	SEG16	F9
GD9	D9	SEG16	F8
GND	O8	SEG2	C7
IC965	L10	SEG2	E9
IC971	L11	SEG3	C7
JK001	G3	SEG3	E9
L700	K7	SEG4	C7
LD001	D7	SEG4	E9
LD002	E7	SEG5	C7
LD003	E7	SEG5	E9
LD004	D7	SEG5	E8
LD005	E7	SEG6	C7
PN001	B5	SEG6	E9
PN002	B9	SEG6	E8
PN901	J8	SEG7	C7
PN902	J4	SEG7	E9
P_CTL	O4	SEG7	E8
P_SENS	O3	SEG8	C7
Q001	D7	SEG8	E9
Q002	D7	SEG8	E8
Q003	E6	SEG9	C6
Q971	M9	SEG9	E9
Q972	M7	SEG9	E8
Q973	M5	SW001	G4
Q974	M7	SW002	G4
Q975	L8	SW003	G5
Q982	M4	SW004	G5
R001	D9	SW005	G5
R002	D9	SW006	G6
R003	D9	SW007	G6
R004	E9	SW008	G6
R005	E9	SW009	G7
R006	E9	SW010	G7
R007	E9	SW011	G8
R008	E9	V1	C4
R009	E9	V1	G9
R010	E9	V2	C4
R011	E9	V2	B9
R012	F9	VFD001	D10
R013	F9	VR001	E5
R014	F9	ZD971	M8
R015	F9	ZD972	M8
R016	F9	ZD973	N8
R017	F9	ZD974	M6
R018	F9	ZD981	N3
R019	F9		
R021	D6		
R023	D4		
R024	D4		
R025	C3		
R026	E4		
R027	F4		

• SMPS SCHEMATIC DIAGRAM

NOTE: Warning

⚠ Parts that are shaded are critical With respect to risk of fire or electrical shock.



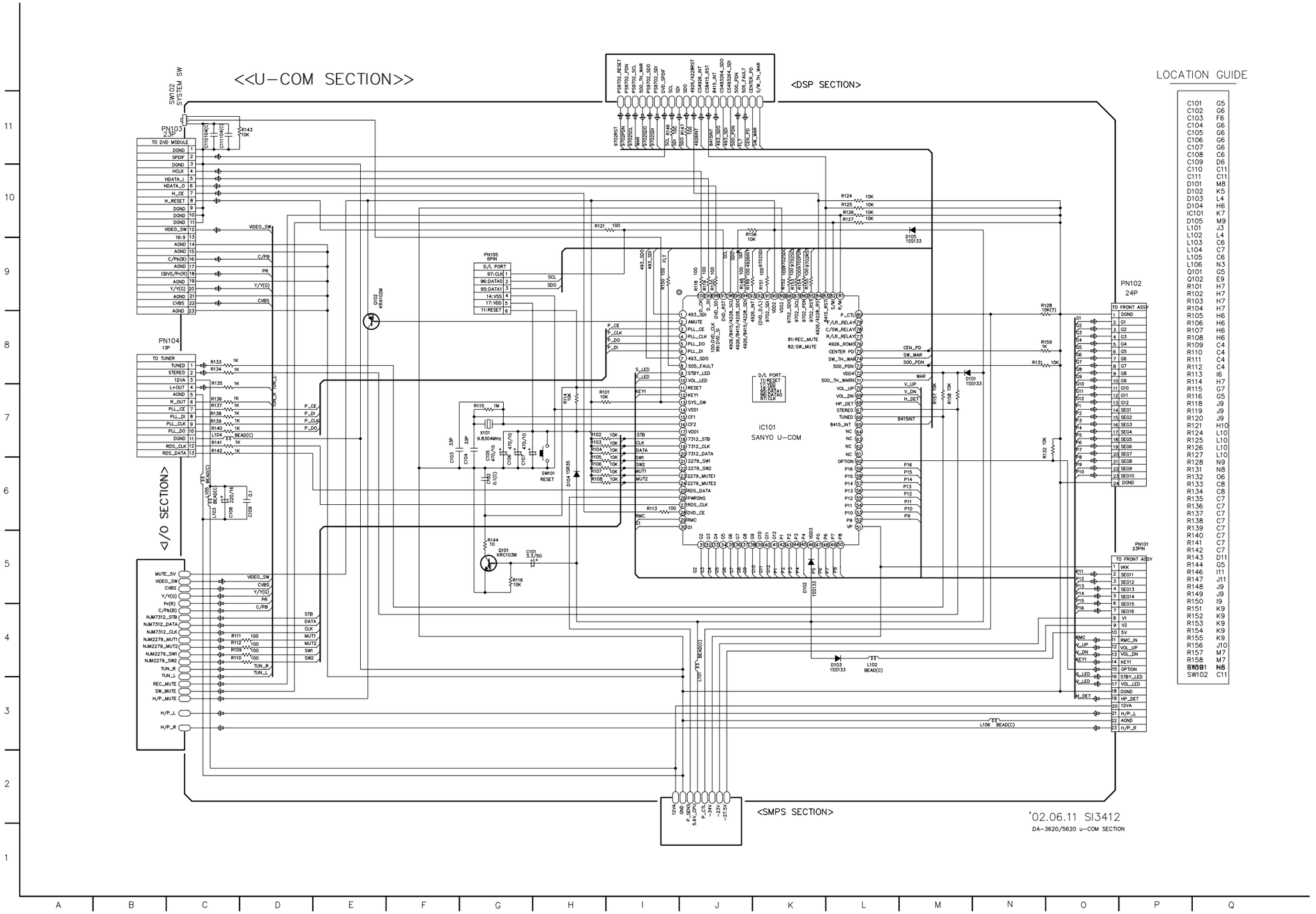
LOCATION GUIDE

BD901	D11	D942	I6
C901	D8	D951	H4
C902	D8	D952	H4
C903	D8	D953	L2
C904	G2	D954	L2
C905	H2	D955	L2
C906	E11	F901	D4
C910	F9	F902	I8
C911	G8	F903	H6
C912	F8	FB901	G10
C913	F8	FH900A	D4
C921	G6	FH900B	D4
C923	G4	IC901	F9
C924	F5	IC902	F4
C925	E4	IC951	I3
C926	E4	IC952	J3
C927	F4	IC961	K11
C929	I8	IC962	K11
C930	I7	IC963	J10
C931	I7	IC964	K10
C932	I7	L931	I11
C933	J7	L932	I10
C934	I11	L933	I10
C935	I11	L951	I4
C936	I10	LF901	D8
C937	J10	LF902	D6
C938	I10	PC910	G7
C939	J10	PC920	G4
C941	I5	PC921	G3
C942	I6	PD901	D2
C951	I5	PN901	D3
C952	I4	Q920	E5
C953	J5	Q950	K3
C954	I3	R900	D5
C955	J3	R910	E5
C956	K3	R911	G9
C957	J7	R912	G9
C962	K11	R913	F8
C963	L11	R921	E5
C964	K10	R923	G6
C965	L9	R924	G5
C983	L9	R925	E4
C984	L11	R927	E5
C985	K10	R930	K7
CM901	D5	R931	K7
CM902	D7	R941	I6
CN901	M7	R943	K3
CN902	M3	R944	K3
CN903	M11	R945	K3
D902	G9	R951	G4
D911	F9	R952	G4
D912	H3	R953	I3
D920	G5	R954	J3
D921	F5	R955	I3
D922	F5	R961	J11
D931	I7	R962	K10
D933	H11	T901	G10
D934	H11	T902	H6
D935	H10	TH901	C7
D936	I8	VR901	D4
D941	H5	ZD910	G8

'02.06.11 SI3545

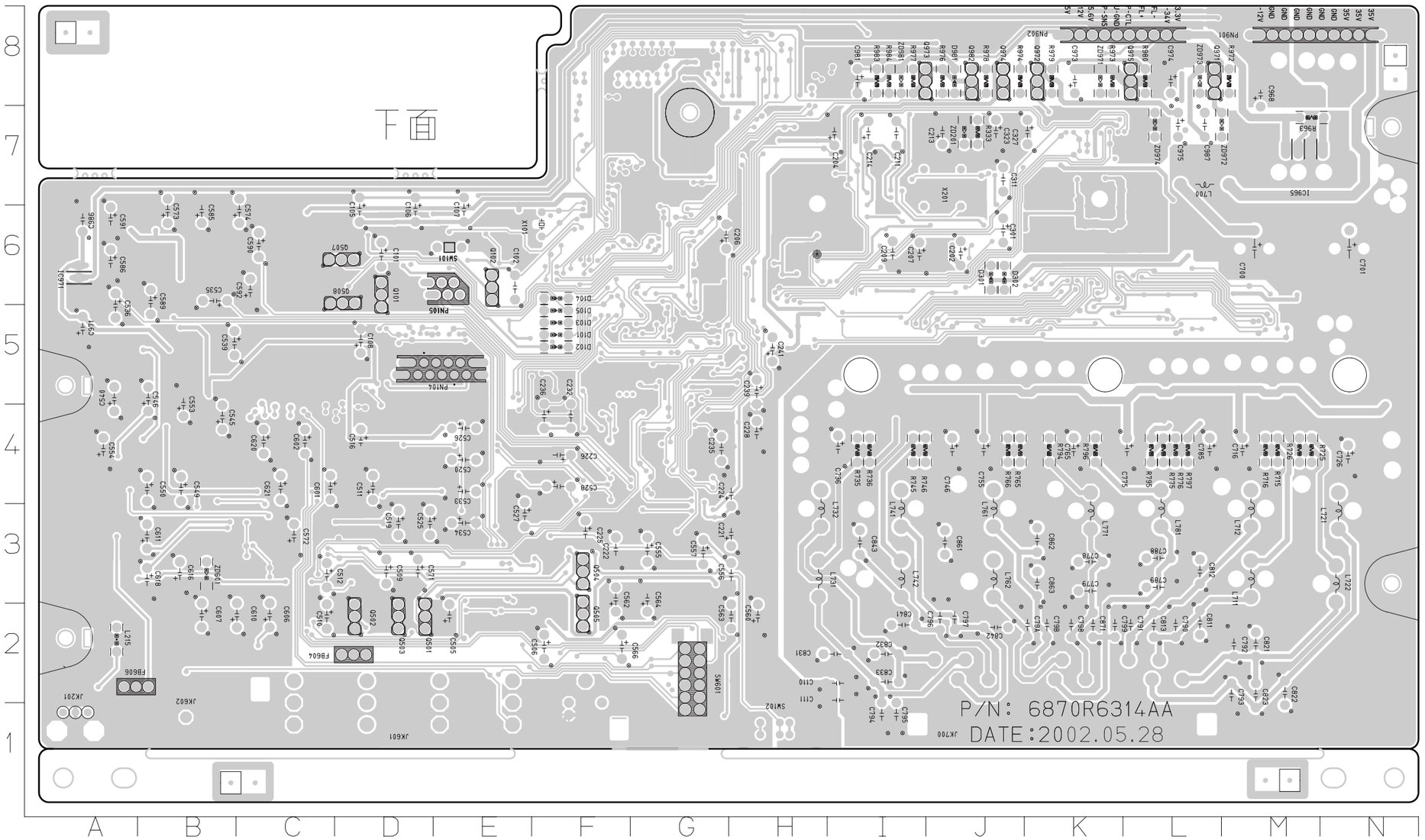
DA-5620/3620

• μ-COM SCHEMATIC DIAGRAM



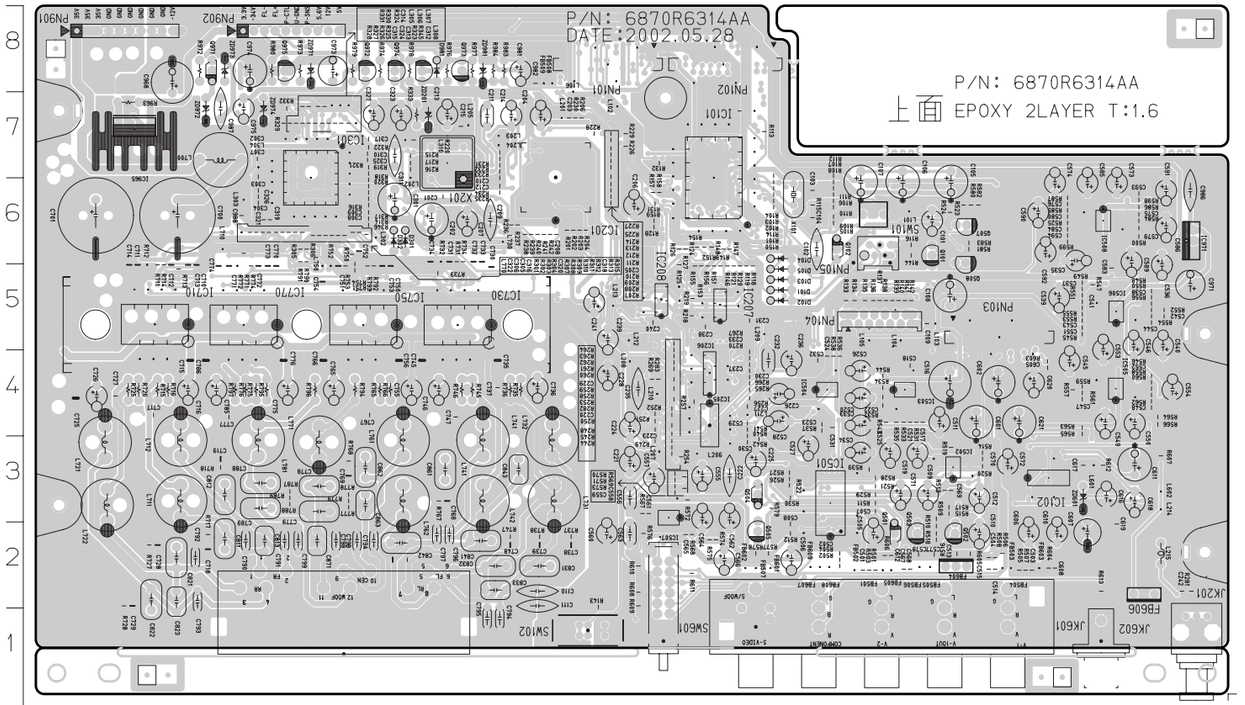
PRINTED CIRCUIT DIAGRAMS

• MAIN P.C. BOARD(SOLDER SIDE)



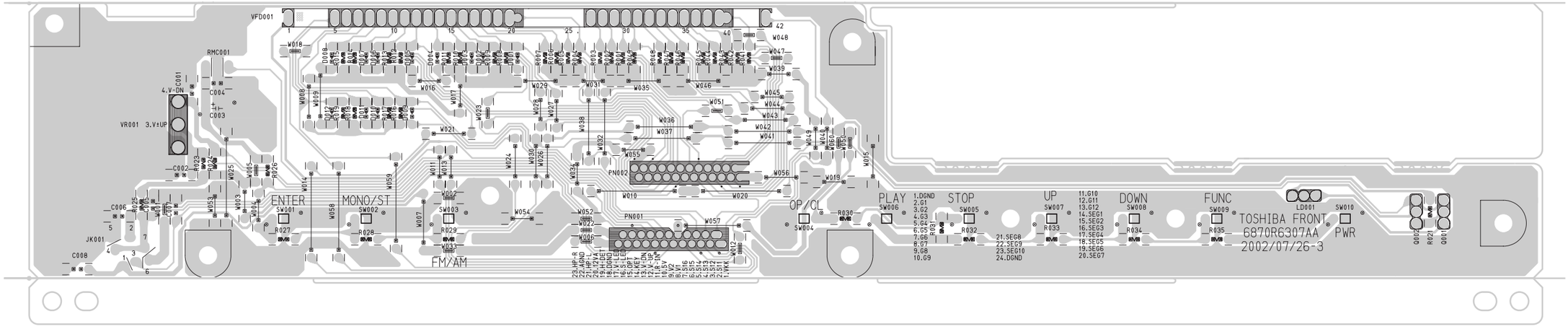
ICT110	E3	ICT259	D5	ICT478	G5
ICT111	E2	ICT262	D5	ICT480	G6
ICT185	E3	ICT263	D5	ICT481	G6
ICT186	D3	ICT270	F5	ICT482	M5
ICT200	G2	ICT274	F6	ICT483	M6
ICT221	F7	ICT277	G6	ICT484	J5
ICT222	F8	ICT284	D5	ICT486	G6
ICT223	F8	ICT286	D5	ICT488	J5
ICT224	F8	ICT289	G6	ICT489	K5
ICT225	F7	ICT292	G6	ICT49	L5
ICT226	F7	ICT296	G7	ICT492	F4
ICT227	F7	ICT300	F6	ICT50	L5
ICT228	F8	ICT301	F6	ICT501	G5
ICT229	F8	ICT304	H7	ICT502	F6
ICT230	F8	ICT307	F6	ICT503	G5
ICT231	F8	ICT322	G5	ICT508	M5
ICT232	F8	ICT326	G5	ICT509	M5
ICT233	F8	ICT327	H6	ICT510	I8
ICT234	G8	ICT330	I7	ICT511	D6
ICT235	G8	ICT331	I7	ICT512	H8
ICT236	G8	ICT355	K6	ICT513	C3
ICT237	G8	ICT364	J7	ICT517	F7
ICT238	G8	ICT371	G5	ICT518	F7
ICT239	G8	ICT387	K7	ICT519	F6
ICT240	G8	ICT391	K7	ICT520	K7
ICT241	G8	ICT399	H7	ICT521	H6
ICT242	G8	ICT400	H7	ICT524	G5
ICT243	G8	ICT401	G4	ICT528	J5
ICT244	G8	ICT402	G4	ICT529	M5
ICT245	G8	ICT404	K7	ICT530	L6
ICT246	G8	ICT406	K7	ICT533	K6
ICT247	G8	ICT415	H5	ICT534	L5
ICT248	H8	ICT419	G4	ICT535	H5
ICT249	F7	ICT424	F4	ICT536	G5
ICT250	G6	ICT425	D3	ICT538	F5
ICT251	H8	ICT449	G5	ICT540	G6
ICT252	H8	ICT450	G4	ICT541	E5
ICT253	G7	ICT465	N8	ICT542	E5
ICT254	H8	ICT472	H8	ICT543	A6
ICT255	H8	ICT473	L7	ICT544	C4
ICT256	H8	ICT474	G8	ICT82	C3
ICT258	D5	ICT476	H5	ICT97	H7

• MAIN P.C. BOARD(COMPONENT SIDE)

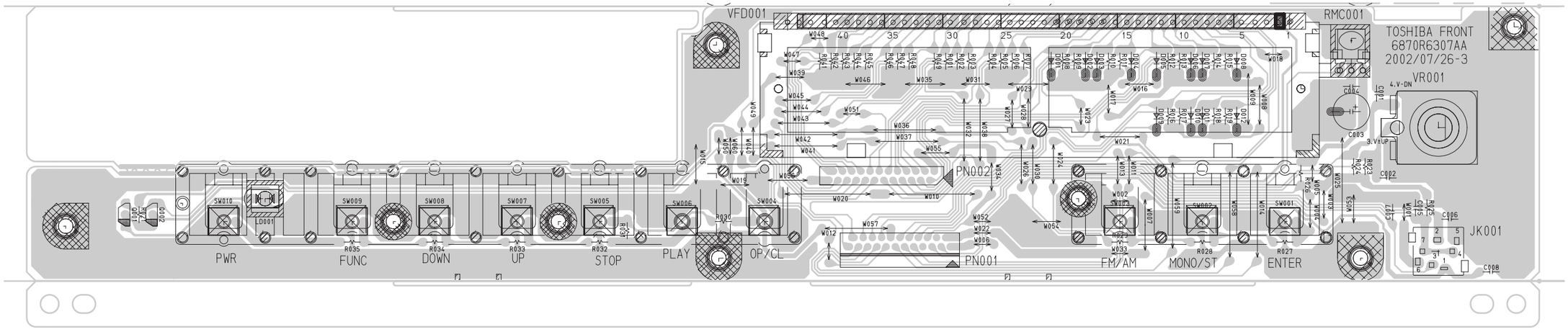


C101	K6	C306	C6	C532	J4	C589	M6	C750	E5	C871	D2	IC710	B5	ICT338	G7	ICT428	H4	ICT75	C5	L761	E3	R132	H7	R232	F7	R317	D6	R534	J4	R587	M6	R778	D3
C102	J6	C307	C7	C533	J4	C590	L6	C751	D5	C968	B8	IC730	E5	ICT339	E7	ICT429	I4	ICT76	C5	L762	E3	R133	J5	R233	F7	R318	D6	R535	K4	R598	M6	R779	D3
C103	J6	C308	D6	C534	J3	C591	N6	C752	D6	C971	N5	IC750	D5	ICT340	D7	ICT430	I4	ICT77	C5	L770	C6	R134	J5	R234	F6	R319	D7	R536	J4	R599	M6	R787	C3
C104	J6	C309	D6	C535	M6	C592	L6	C753	E5	C973	D8	IC770	C5	ICT341	D6	ICT433	I4	ICT78	C6	L771	D3	R135	J5	R235	F6	R320	D6	R537	J4	R603	L4	R788	C3
C105	K6	C310	D7	C536	N5	C593	M6	C754	D5	C974	C8	IC965	B7	ICT342	D6	ICT434	H4	ICT93	M6	L781	C3	R136	J5	R236	F6	R321	D7	R538	J4	R604	L2	R789	C3
C106	K6	C311	E7	C537	M5	C594	M6	C755	E4	C975	C7	IC971	N6	ICT343	D6	ICT436	I4	ICT94	M6	PN101	G8	R137	J5	R237	F6	R322	D7	R539	J3	R605	K2	R790	D6
C107	J6	C312	D7	C538	N5	C601	L4	C756	E4	C981	F8	ICT107	M3	ICT344	D6	ICT437	I4	JK201	N1	PN102	I8	R138	J5	R238	F6	R323	D7	R540	I3	R606	J2	R791	D6
C108	K5	C313	D7	C539	M5	C602	L4	C765	D4	C982	F8	ICT108	J2	ICT345	D6	ICT442	C7	JK601	I1	PN103	L5	R139	K5	R239	F6	R324	D7	R541	I4	R607	N3	R792	D5
C109	K5	C314	D7	C540	N5	C605	L4	C766	D4	C986	N6	ICT109	J2	ICT346	D6	ICT443	D7	JK602	M1	PN104	J5	R140	K5	R240	F6	R325	D7	R542	I3	R608	H2	R793	D5
C110	F2	C315	D7	C541	M5	C606	L2	C767	D4	C987	C7	ICT127	J4	ICT347	D6	ICT444	D7	JK700	D1	PN105	J6	R141	K5	R241	F6	R326	D7	R543	J4	R609	H2	R794	D4
C111	F2	C316	C6	C542	N5	C607	M2	C768	E3	C988	C6	ICT129	J4	ICT349	D6	ICT445	D7	L101	K6	PN901	A8	R142	K5	R242	G6	R327	D7	R544	J4	R610	H2	R795	C4
C201	E6	C317	D7	C543	M5	C608	L2	C769	D3	D101	I5	ICT132	J4	ICT350	C6	ICT446	C7	L102	G7	PN902	C8	R143	G2	R244	H3	R328	C7	R545	M5	R611	H2	R796	D4
C202	E6	C318	D6	C544	N5	C610	L2	C770	C5	D102	I5	ICT133	K4	ICT351	C6	ICT448	N2	L103	K5	Q101	K6	R144	K6	R245	H3	R329	C7	R546	N4	R612	M3	R797	C4
C203	G7	C319	C6	C545	M4	C611	M3	C771	C5	D103	I5	ICT148	M4	ICT352	C6	ICT47	D5	L104	K5	Q102	J6	R146	I5	R248	H3	R330	D7	R547	M5	R613	M2	R963	B7
C204	F7	C320	D6	C546	M5	C612	K2	C772	C5	D104	I6	ICT151	M4	ICT360	F6	ICT48	D5	L105	J5	Q501	K2	R147	I6	R249	H3	R331	D7	R548	N5	R711	B5	R972	B8
C205	G7	C321	C6	C547	M4	C616	M3	C773	C5	D105	I5	ICT153	M5	ICT361	F6	ICT491	I4	L106	G7	Q502	K2	R148	I6	R250	H4	R332	D7	R549	M5	R712	B5	R973	D8
C206	H6	C322	C6	C548	N4	C617	M3	C774	C5	D301	E6	ICT154	M5	ICT362	F7	ICT493	I3	L201	G7	Q503	K2	R149	I5	R251	H4	R333	E7	R550	N5	R713	B5	R974	E8
C207	F6	C323	E7	C549	M4	C618	M3	C775	C4	D302	E6	ICT155	M5	ICT363	F7	ICT494	I3	L202	E6	Q504	I3	R150	I6	R252	H4	R345	D7	R551	M5	R714	B5	R976	E8
C208	G6	C324	D7	C550	M4	C619	M2	C776	C4	D981	E8	ICT159	M5	ICT370	F7	ICT500	H5	L203	F7	Q505	I2	R151	H5	R253	H4	R346	D6	R552	N5	R715	B4	R977	F8
C209	F6	C325	D7	C551	M5	C620	L4	C777	C4	FB501	J2	ICT160	N5	ICT372	G7	ICT506	D6	L204	F7	Q507	K6	R152	H6	R254	H3	R500	M6	R553	M5	R716	B4	R978	E8
C210	F7	C326	C6	C552	N4	C621	L4	C778	D3	FB502	J2	ICT174	H3	ICT373	G6	ICT507	D6	L205	F7	Q508	K6	R153	H5	R256	I4	R501	J2	R554	N5	R717	C2	R979	D8
C211	F7	C327	D7	C553	M4	C700	B6	C779	D3	FB503	L2	ICT175	H3	ICT374	G6	ICT51	B5	L206	H3	Q971	C8	R154	H6	R257	H4	R502	J2	R555	M5	R718	C3	R980	C8
C212	F6	C501	J2	C554	N4	C701	A6	C785	C4	FB504	L2	ICT184	J3	ICT375	G6	ICT514	L3	L207	H3	Q972	D8	R155	H5	R258	H4	R503	J2	R556	N5	R725	B4	R983	F8
C213	E7	C502	J2	C555	H3	C710	B5	C786	B4	FB505	K2	ICT189	I3	ICT376	G7	ICT515	J6	L208	G4	Q973	F8	R156	H5	R259	H4	R504	J2	R557	M4	R726	B4	R984	F8
C214	F7	C503	L2	C556	G3	C711	B5	C788	C3	FB506	K2	ICT190	J3	ICT377	G7	ICT516	J6	L209	I5	Q974	E8	R157	H6	R260	H4	R505	L2	R558	N4	R727	B2	SW101	J6
C215	E7	C504	L2	C557	H3	C712	B5	C789	C3	FB507	I2	ICT378	G7	ICT52	C5	L210	H4	Q975	C8	R158	H6	R261	H4	R506	L2	R559	M4	R728	B2	SW102	G1
C220	H4	C505	J2	C558	H3	C713	B5	C790	C2	FB508	G8	ICT215	J2	ICT379	G7	ICT522	H5	L211	I4	Q982	E8	R159	H6	R262	H4	R507	L2	R560	N4	R731	E6	SW601	H1
C221	G3	C506	I2	C559	H3	C714	B5	C791	C2	FB509	F8	ICT261	J5	ICT380	G6	ICT523	H5	L212	G5	R101	I6	R201	G6	R263	H4	R508	L2	R561	M4	R732	E6	TP1	C6
C222	I3	C507	J3	C560	G2	C715	B4	C792	B2	FB601	I2	ICT267	K5	ICT381	G7	ICT527	D6	L213	G5	R102	I6	R202	G6	R264	H5	R509	K3	R562	N4	R733	E5	TP3	I4
C223	H4	C508	I2	C561	H3	C716	B4	C793	B2	FB602	I2	ICT268	I6	ICT382	G6	ICT53	D5	L214	N3	R103	I6	R203	G6	R265	I4	R510	K2	R563	M4	R734	F6	X101	I6
C224	G4	C509	K3	C562	I3	C717	B4	C794	F1	FB603	L2	ICT269	I6	ICT383	G6	ICT531	H6	L215	N2	R104	I7	R204	G6	R266	I4	R511	J3	R564	N4	R735	F4	X201	E7
C225	I3	C510	L2	C563	G2	C718	C2	C795	F1	FB604	K2	ICT272	I6	ICT384	G6	ICT532	D6	L302	D6	R105	J6	R206	G7	R267	I4	R512	I2	R565	M4	R736	F4	ZD201	E7
C226	I4	C511	K4	C564	H3	C719	C3	C796	E2	FB605	K2	ICT273	I6	ICT385	G7	ICT537	I5	L303	C6	R106	J6	R207	G6	R269	H4	R513	K3	R566	N4	R737	G2	ZD601	M3
C227	I4	C512	L3	C565	H2	C725	A4	C797	E2	FB606	N2	ICT275	H6	ICT386	D7	ICT54	E5	L304	C7	R107	J6	R208	G6	R270	I4	R514	L3	R567	H3	R738	F2	ZD971	D8
C228	G4	C513	K2	C566	I2	C726	A4	C798	D2	FB607	J2	ICT276	H6	ICT389	D7	ICT55	B5	L305	D7	R108	J6	R209	G6	R281	N2	R515	K3	R568	H2	R745	F4	ZD972	B7
C229	H4	C514	L2	C567	K2	C727	A4	C799	D2	FB608	J2	ICT278	H6	ICT390	D7	ICT56	B5	L306	D7	R109	J6	R210	G6	R282	H4	R516	K2	R569	H3	R746	F4	ZD973	C8
C230	I4	C515	L2	C568	K2	C728	B2	C79A	D2	FB609	J2	ICT281	J6	ICT392	D7	ICT57	B5	L307	D7	R110	J6	R211	G7	R283	H4	R517	K3	R570	H3	R747	F2	ZD974	C7
C231	I5	C516	K4	C569	K3	C729	B2	C79B	D2	IC101	H6	ICT282	J6	ICT393	D6	ICT58	B5	L308	D7	R111	J6	R212	G7	R301	C6	R518	K2	R571	H3	R748	E2	ZD981	F8
C232	I4	C517	K4	C570	L3	C730	F5	C811	C2	IC102	L3	ICT283	J7	ICT394	D6	ICT59	B5	L310	E7	R112	J7	R213	G7	R302	C6	R519	K3	R572	H3	R750	D6		
C233	I4	C518	K4	C571	K3	C731	E6	C812	C3	IC201	G6	ICT288	I6	ICT395	D6	ICT60	C6	L601	M3	R113	I7	R214	G7	R303	C6	R520	L3	R573	H3	R751	D5		
C235	H4	C519	K3	C572	L3	C732	F6	C813	C2	IC205	H4	ICT297	I7	ICT403	F6	ICT61	F5	L602	N3	R114	I6	R215	E7	R304	D6	R521	J3	R574	H2	R752	D5		
C236	I4	C520	J4	C573	M6	C733	F6	C821	B2	IC206	H4	ICT309	J6	ICT405	F6	ICT62	F5	L700	C7	R115	J6	R216	E7	R305	D6	R522	I3	R575	H2	R753	D5		
C237	I4	C521	K4	C574	L6	C734	E6	C822	B2	IC207	I5	ICT319	D6	ICT407	H4	ICT63	E5	L710	C6	R116	K6	R217	E7	R306	D6	R523	K6	R576	H2	R754	D5		
C238	H5	C522	J4	C575	M6	C735	F4	C823	B2	IC208	H5	ICT320	D6	ICT408	H4	ICT64	E5	L711	B3	R118	I5	R218	H5	R307	D6	R524	K6	R577	I2	R765	E4		
C239	G5	C523	J4	C576	M6	C736	F4	C831	F2	IC301	D6	ICT324	G6	ICT409	H4	ICT65	E5	L712	B3	R119	I5	R219	H5	R308	D6	R525	M6	R578	I2	R766	E4		
C240	H5	C524	J4	C577	K2	C737	F4	C832	F2	IC501	J3	ICT325	H4	ICT411	H5	ICT67	E5	L721	A3	R120	I5	R220	E7	R309	D6	R526	I3	R579	I3	R767	E3		
C241	G5	C525	K3	C578	K2	C738	G2	C833	F2	IC502	K3	ICT328	G7	ICT412	H5	ICT68	E5	L722	A3	R121	I5	R225	G7	R310	D6	R527	I3	R580	K6	R768	D3		
C242	N2	C526	J4	C579	M6	C739	F2	C841	F2	IC503	K4	ICT329	H5	ICT413	H4	ICT69	D5	L730	F6	R124	H6	R226	G7	R311	D6	R528	J3	R581	K6	R771	C6		
C301	E6	C527	J3	C580	M6	C745	E4	C842	E2	IC504	J4	ICT332	F6	ICT414	H4	ICT70	D5	L731	G3	R125	H5	R227	G7	R312	D6	R529	J3	R582	L6	R772	C5		
C302	C7	C528	I4	C583	M5	C746	E4	C843	F3	IC505	M4	ICT334	F6	ICT416	H3	ICT71	D5	L732	G3	R126	H6	R228	G7	R313	D6	R530	I3	R583	K6	R774	C5		
C303	C6	C529	I4	C584	M6	C747	E4	C861	E3	IC506	M5	ICT335	F6	ICT417	H4	ICT72	D5	L741	F3	R127	H6	R229	G7	R314	D6	R531	K4	R584	M6	R775	C4		
C304	C6	C530	I3	C585	M6	C748	F2	C862	D3	IC507	H3	ICT336	G6	ICT420	H4	ICT73	C5	L742	F3	R128	H6	R230	G7	R315	D6	R532	J4	R585	M6	R776	C4		
C305	C6	C531	J4	C586	N6	C749	E2	C863	D3	IC508	M6	ICT337	G6	ICT422	H3	ICT74	C5	L750	D5	R131	H6	R231	F7	R316	D6	R533	K4	R586	M6	R777	D3		

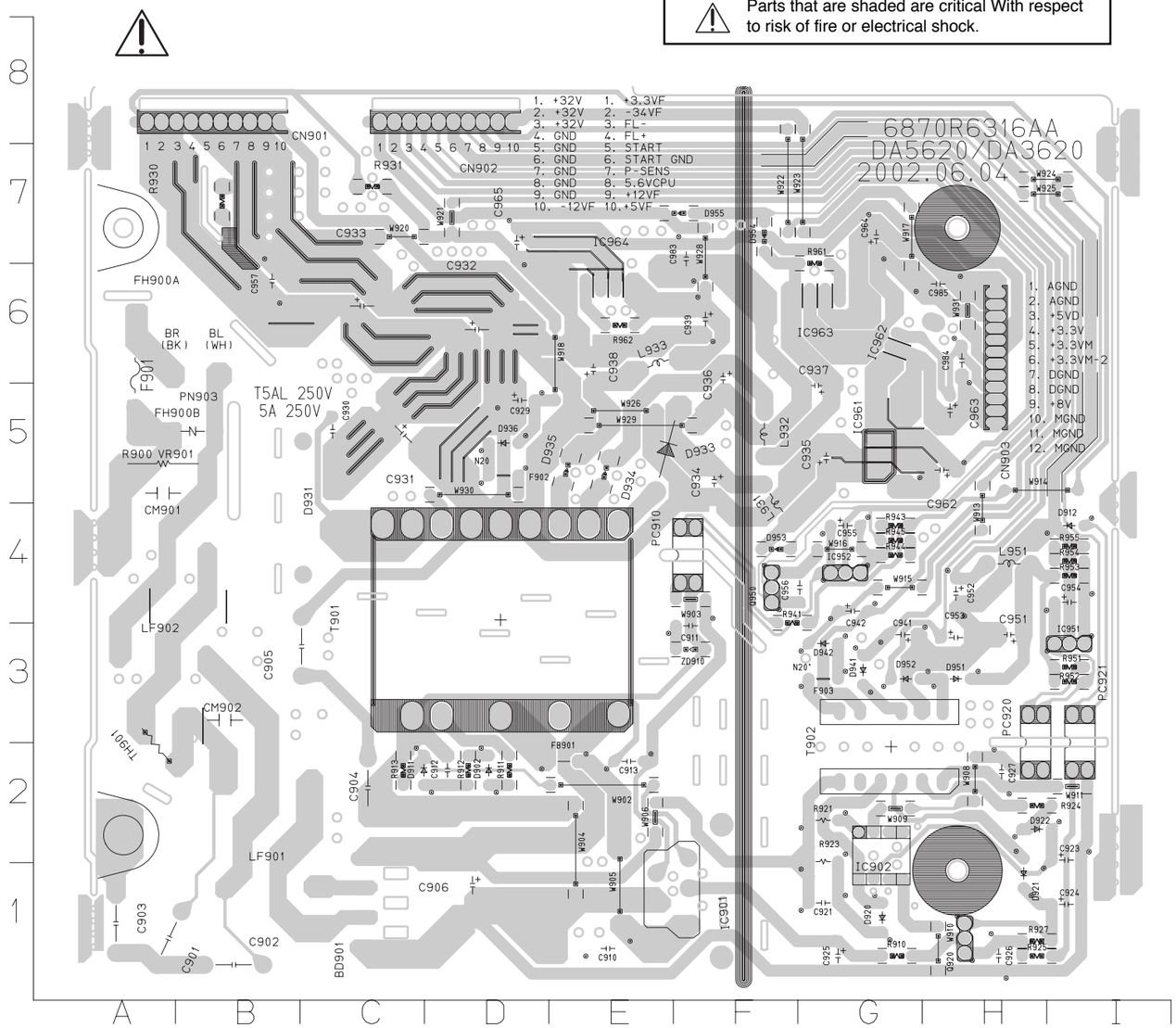
• MAIN/FRONT P.C. BOARD(SOLDER SIDE)



• MAIN/FRONT P.C. BOARD(COMPONENT SIDE)



• POWER P.C. BOARD



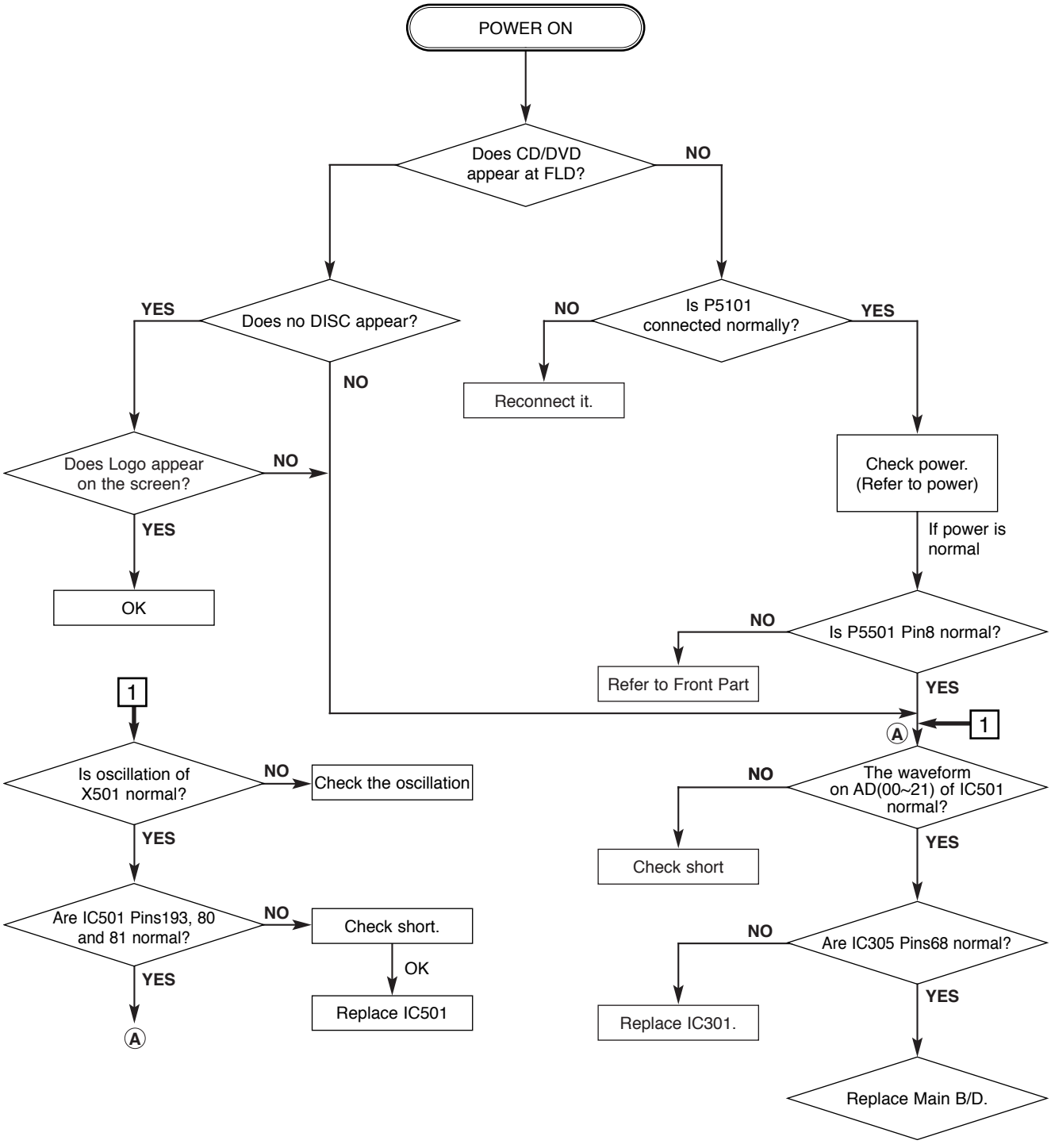
BD901	C1	D941	G3
C901	A1	D942	G3
C902	B1	D951	H3
C903	A1	D952	G3
C904	C2	D953	F4
C905	C3	D954	F7
C906	D1	D955	F7
C910	E1	F902	D5
C911	F3	F903	G3
C912	D2	FB901	E2
C913	E2	FH900A	A6
C921	G1	FH900B	A5
C923	I2	IC901	F1
C924	I1	IC902	G2
C925	G1	IC951	I3
C926	H1	IC952	G4
C927	H2	IC961	G5
C929	D5	IC962	G6
C930	C5	IC963	G6
C931	C5	IC964	E6
C932	D6	L931	F5
C933	C6	L932	F5
C934	F5	L933	E6
C935	G5	L951	H4
C936	F6	LF901	B2
C937	G5	LF902	A4
C938	E6	PC910	F4
C939	F6	PC920	H3
C941	G3	PC921	I3
C942	G4	PN903	B6
C951	H3	Q920	H1
C952	H4	Q950	F4
C953	H3	R900	A5
C954	I4	R910	G1
C955	G4	R911	D2
C956	G4	R912	D2
C957	B6	R913	C2
C962	H5	R921	G2
C963	H5	R923	G2
C964	G7	R924	H2
C965	D7	R925	H1
C983	F7	R927	H1
C984	H6	R930	B7
C985	H6	R931	C7
CM901	A5	R941	F3
CM902	B3	R943	G4
CN901	B8	R944	G4
CN902	D8	R945	G4
CN903	H6	R951	I3
D902	D2	R952	I3
D911	C2	R953	I4
D912	I4	R954	I4
D920	G1	R955	I4
D921	H1	R961	G6
D922	H2	R962	E6
D931	C4	T901	D4
D933	E5	T902	G2
D934	E5	TH901	A2
D935	E5	VR901	B5
D936	D5	ZD910	F3

SECTION 2-3. DVD PART

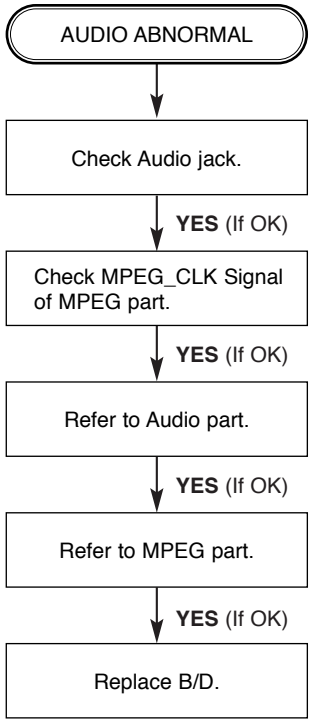
ELECTRICAL TROUBLESHOOTING GUIDE

1. μ-COM Circuit

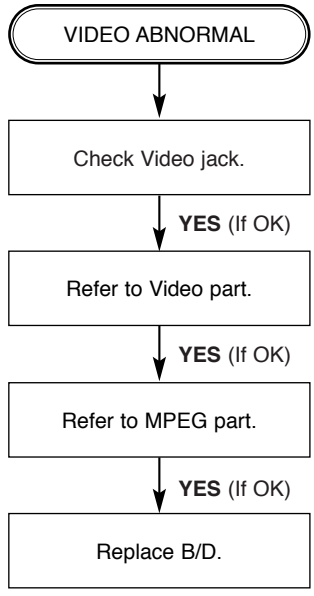
A. No Power



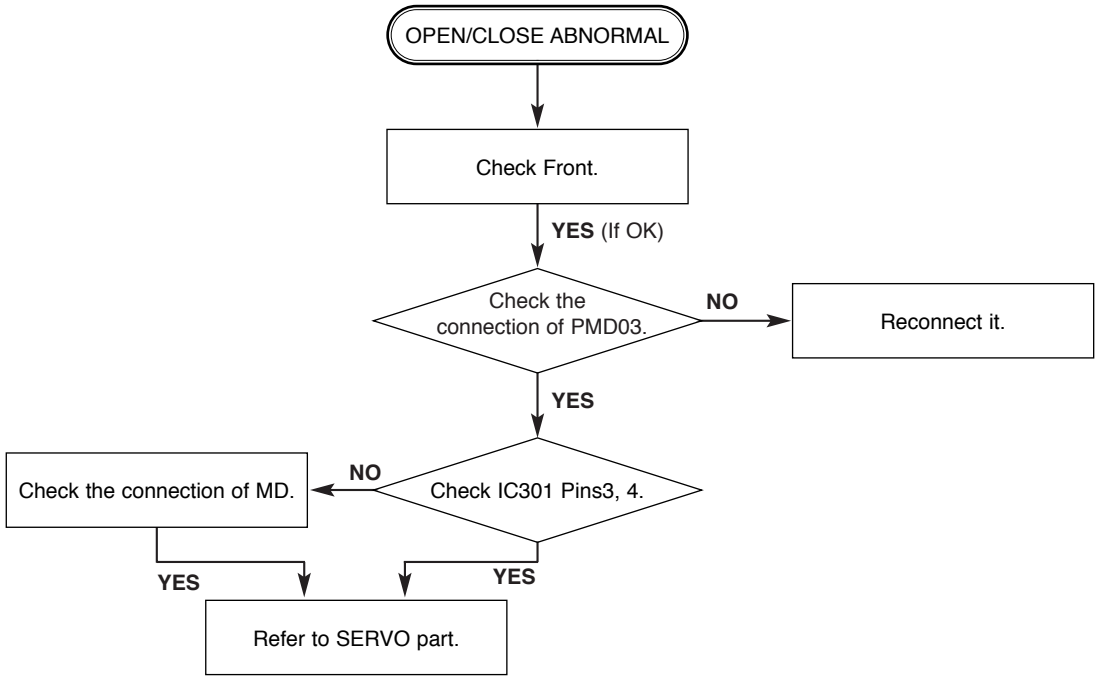
B. Audio abnoraml



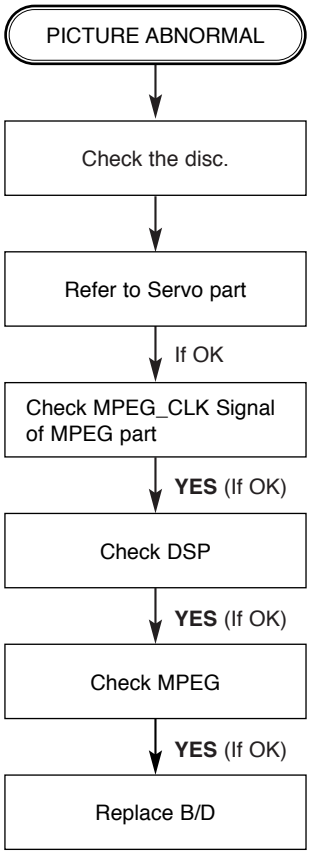
C. Video abnoraml



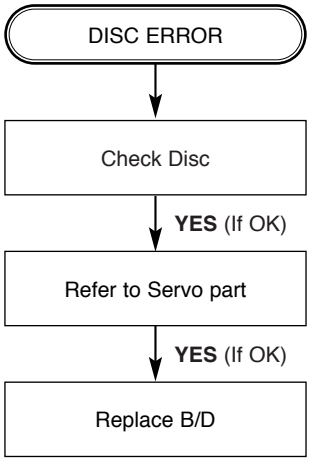
D. Open/Close abnormal



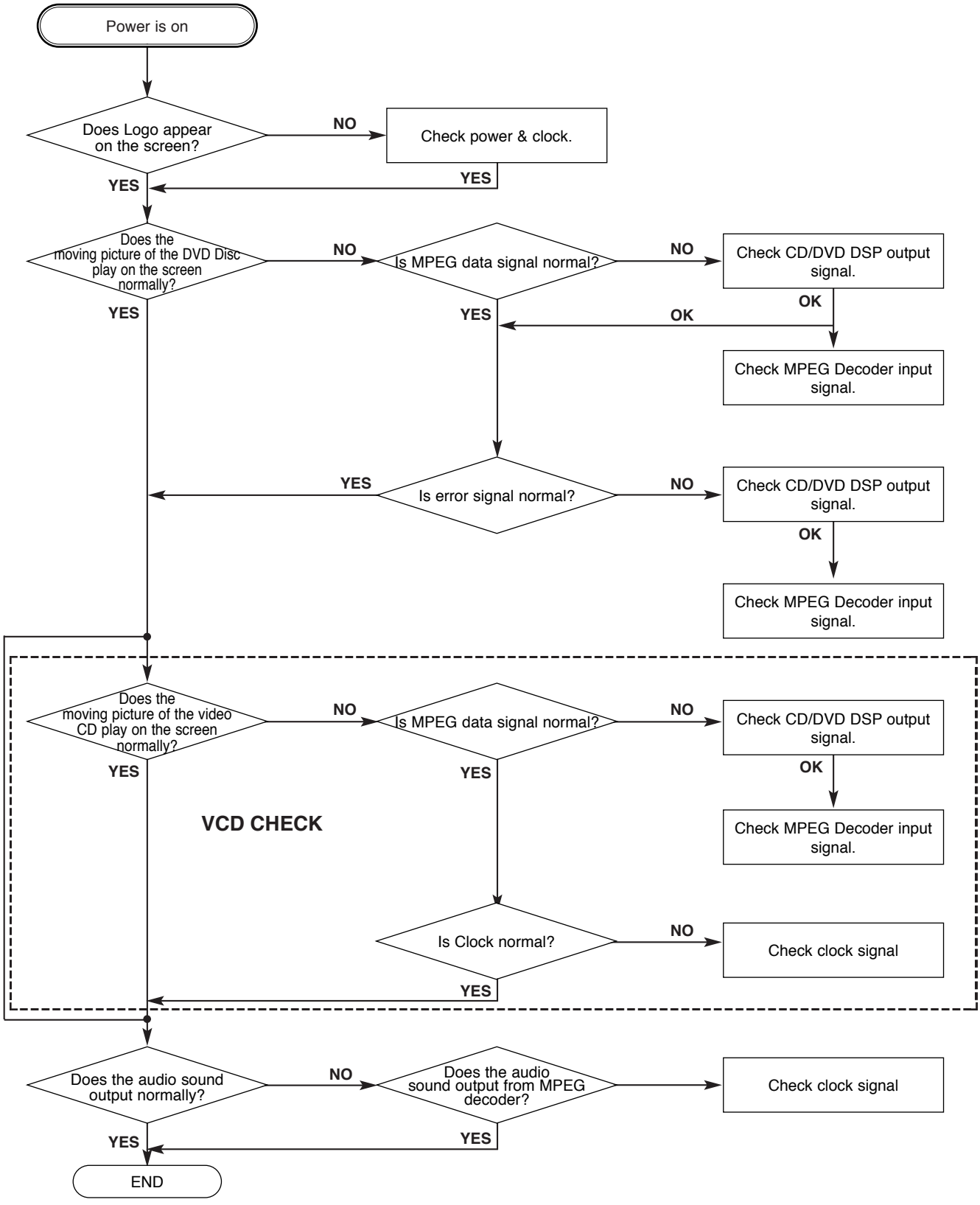
E. Picture abnoraml



F. Disc Error

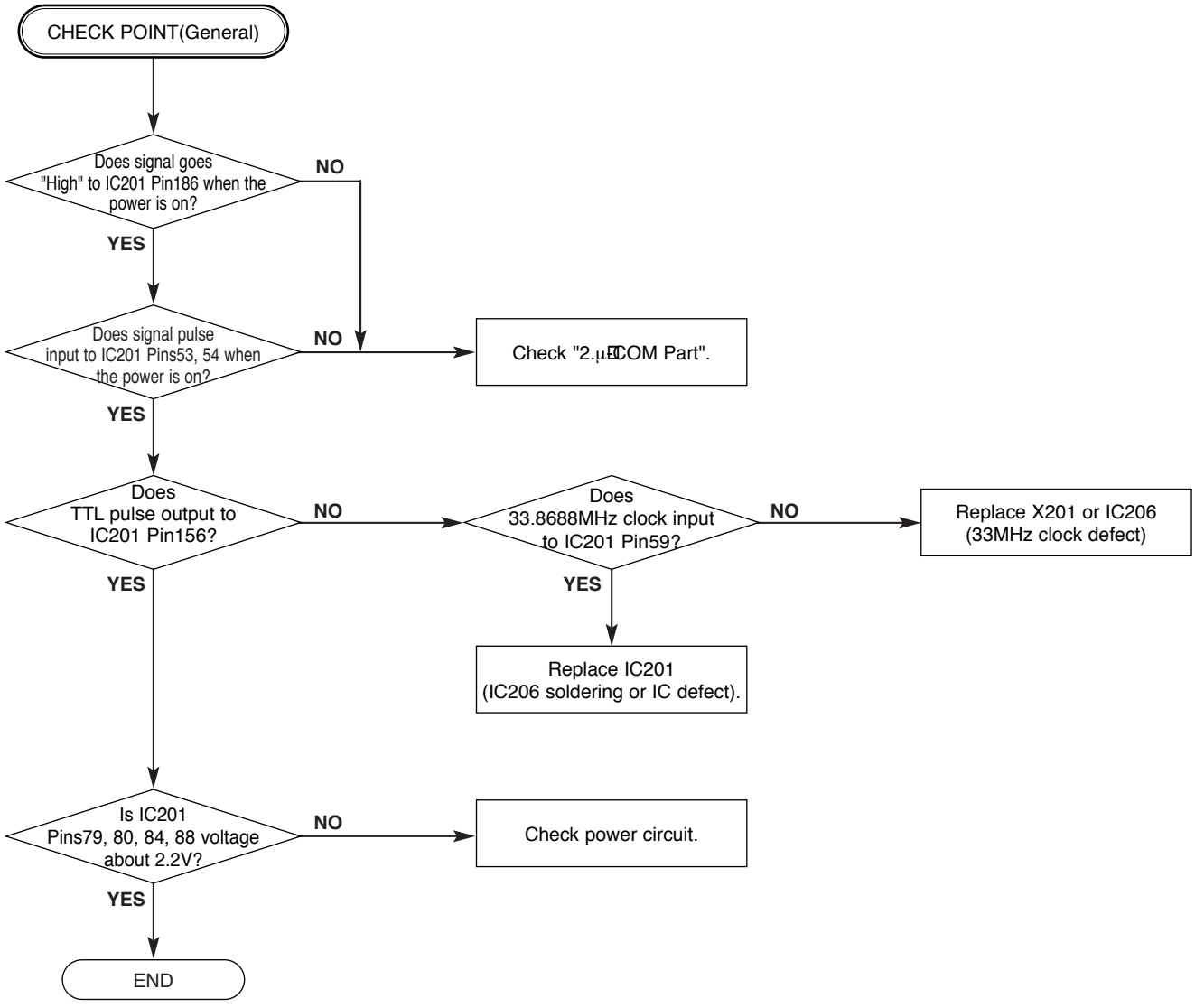


2. MPEG Circuit

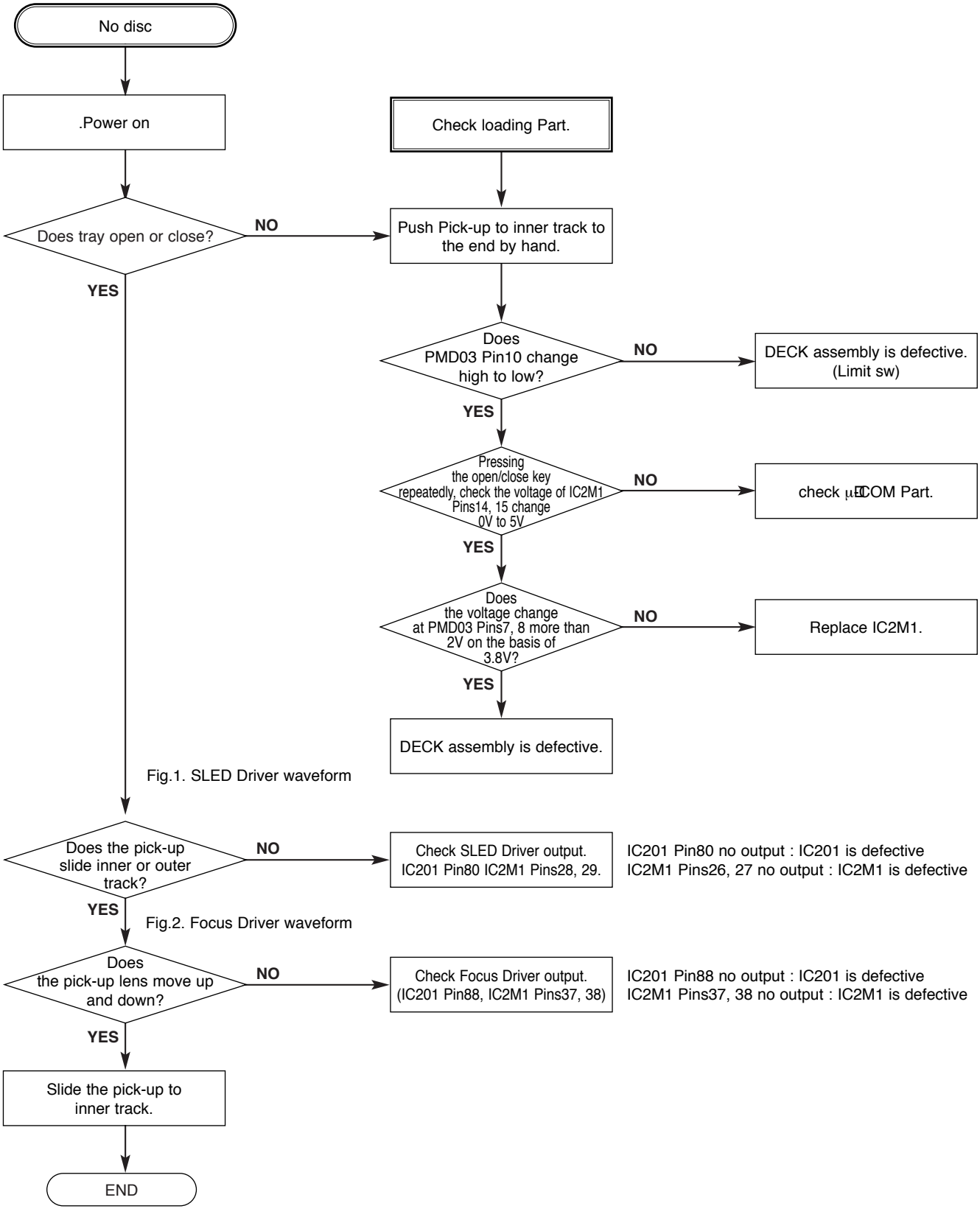


3. RF/Servo Circuit

A.



B.


No disc
.Power on
Does tray open or close?
NO
YES
Check loading Part.
Push Pick-up to inner track to the end by hand.
Does PMD03 Pin10 change high to low?
NO
DECK assembly is defective. (Limit sw)
YES
Pressing the open/close key repeatedly, check the voltage of IC2M1 Pins14, 15 change 0V to 5V
NO
check μCOM Part.
YES
Does the voltage change at PMD03 Pins7, 8 more than 2V on the basis of 3.8V?
NO
Replace IC2M1.
YES
DECK assembly is defective.
Fig.1. SLED Driver waveform
Does the pick-up slide inner or outer track?
NO
Check SLED Driver output. IC201 Pin80 IC2M1 Pins28, 29.
IC201 Pin80 no output : IC201 is defective
IC2M1 Pins26, 27 no output : IC2M1 is defective
YES
Fig.2. Focus Driver waveform
Does the pick-up lens move up and down?
NO
Check Focus Driver output. (IC201 Pin88, IC2M1 Pins37, 38)
IC201 Pin88 no output : IC201 is defective
IC2M1 Pins37, 38 no output : IC2M1 is defective
YES
Slide the pick-up to inner track.
END

C.

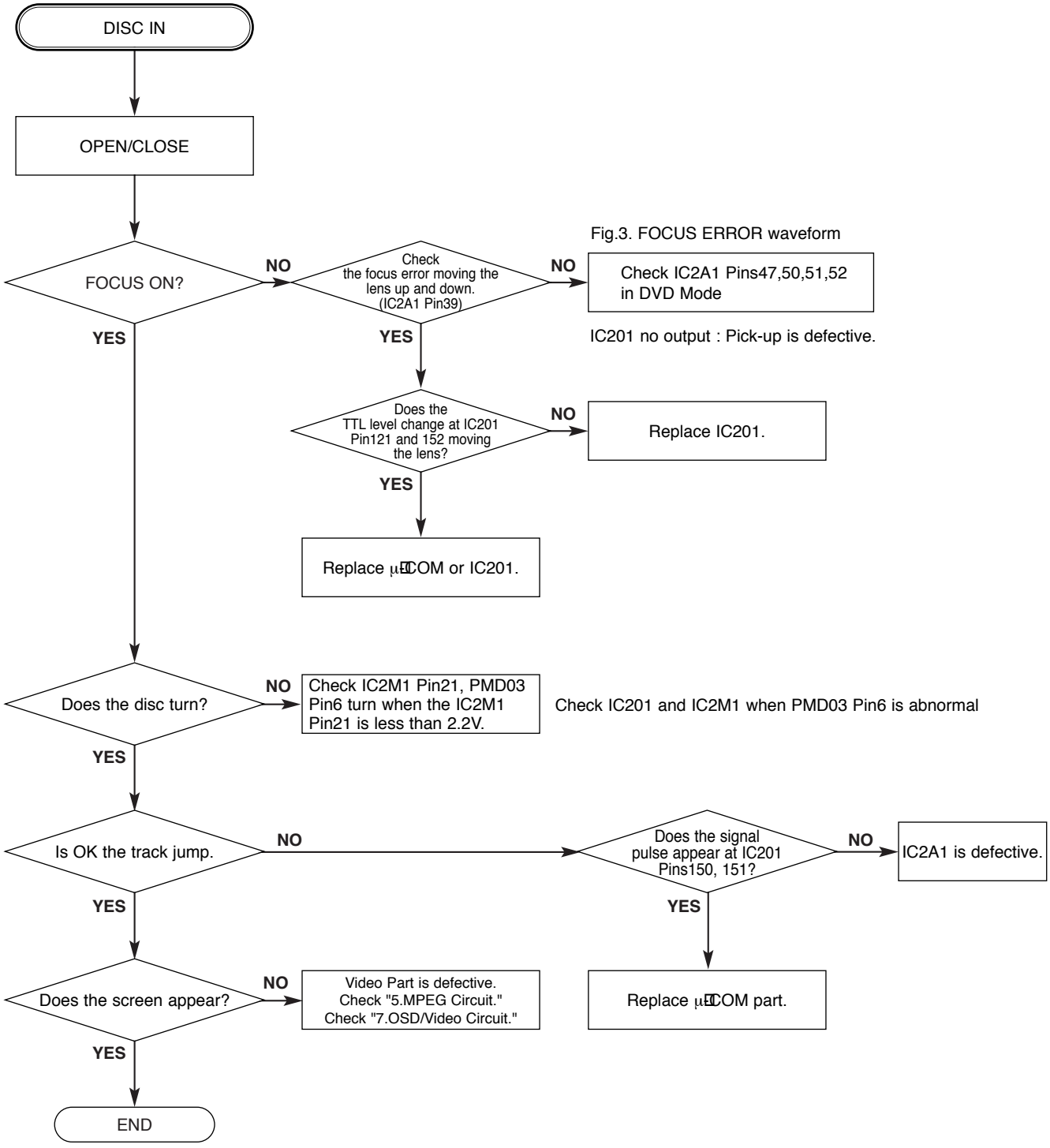
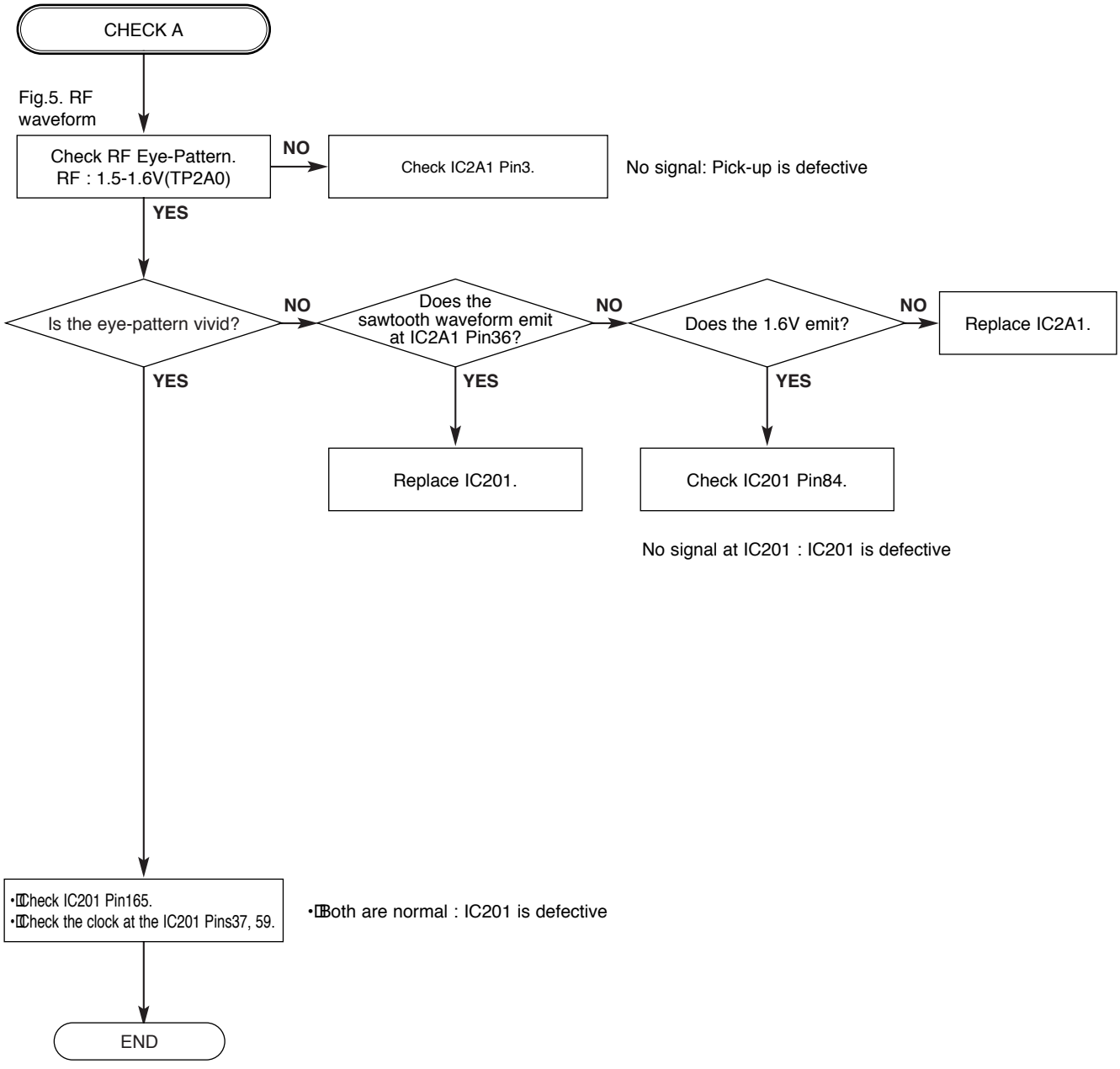


Fig.3. FOCUS ERROR waveform

IC201 no output : Pick-up is defective.

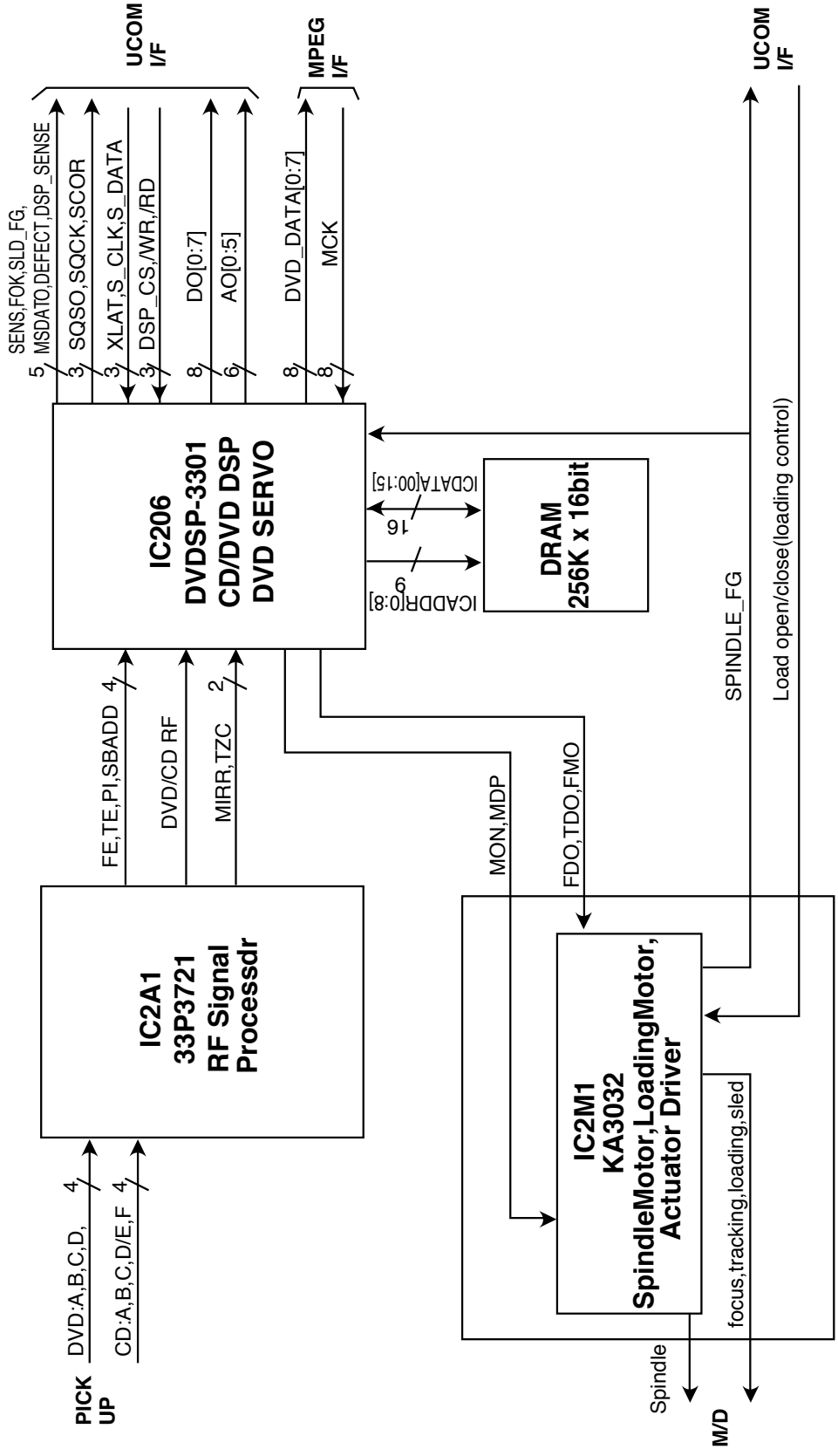
Check IC201 and IC2M1 when PMD03 Pin6 is abnormal

D.

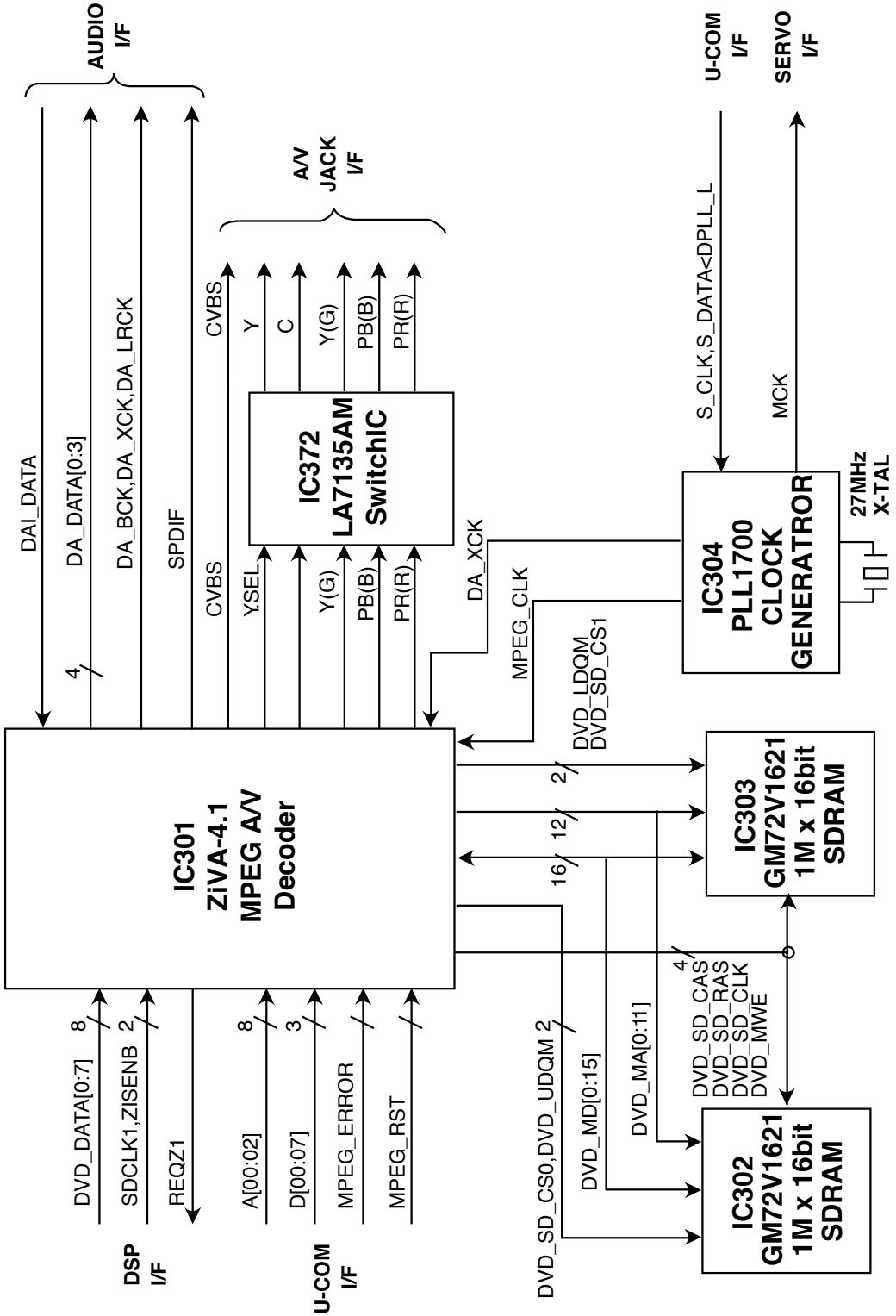

CHECK A
Fig.5. RF waveform
Check RF Eye-Pattern.
RF : 1.5-1.6V(TP2A0)
NO
Check IC2A1 Pin3.
No signal: Pick-up is defective
YES
Is the eye-pattern vivid?
NO
Does the sawtooth waveform emit at IC2A1 Pin36?
NO
Does the 1.6V emit?
NO
Replace IC2A1.
YES
YES
YES
Replace IC201.
Check IC201 Pin84.
No signal at IC201 : IC201 is defective
• Check IC201 Pin165.
• Check the clock at the IC201 Pins37, 59.
• Both are normal : IC201 is defective
END

BLOCK DIAGRAMS

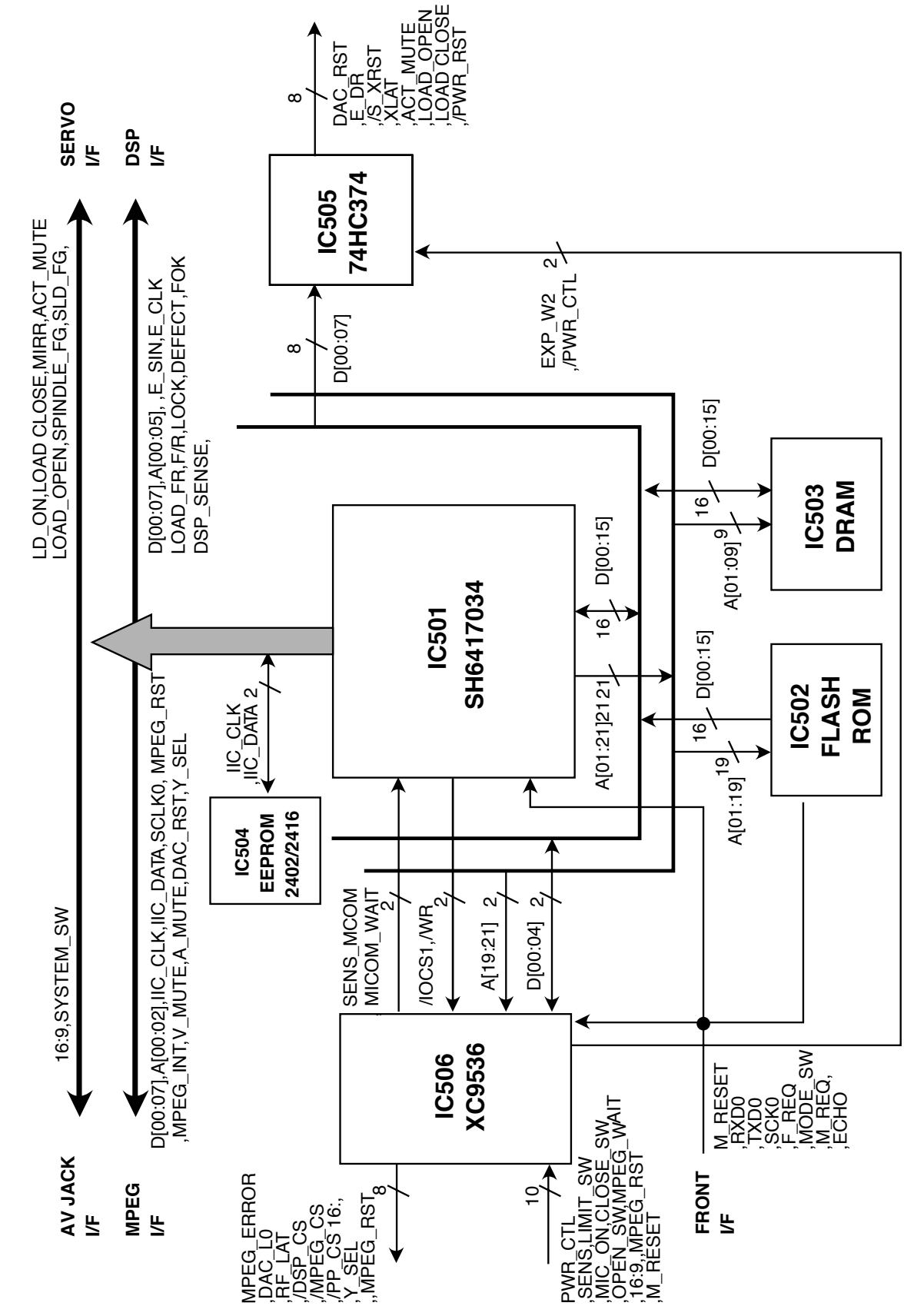
1. RF/CD DSP/DVD DSP/DVD SERVO Block Diagram



2. MPEG Block Diagram



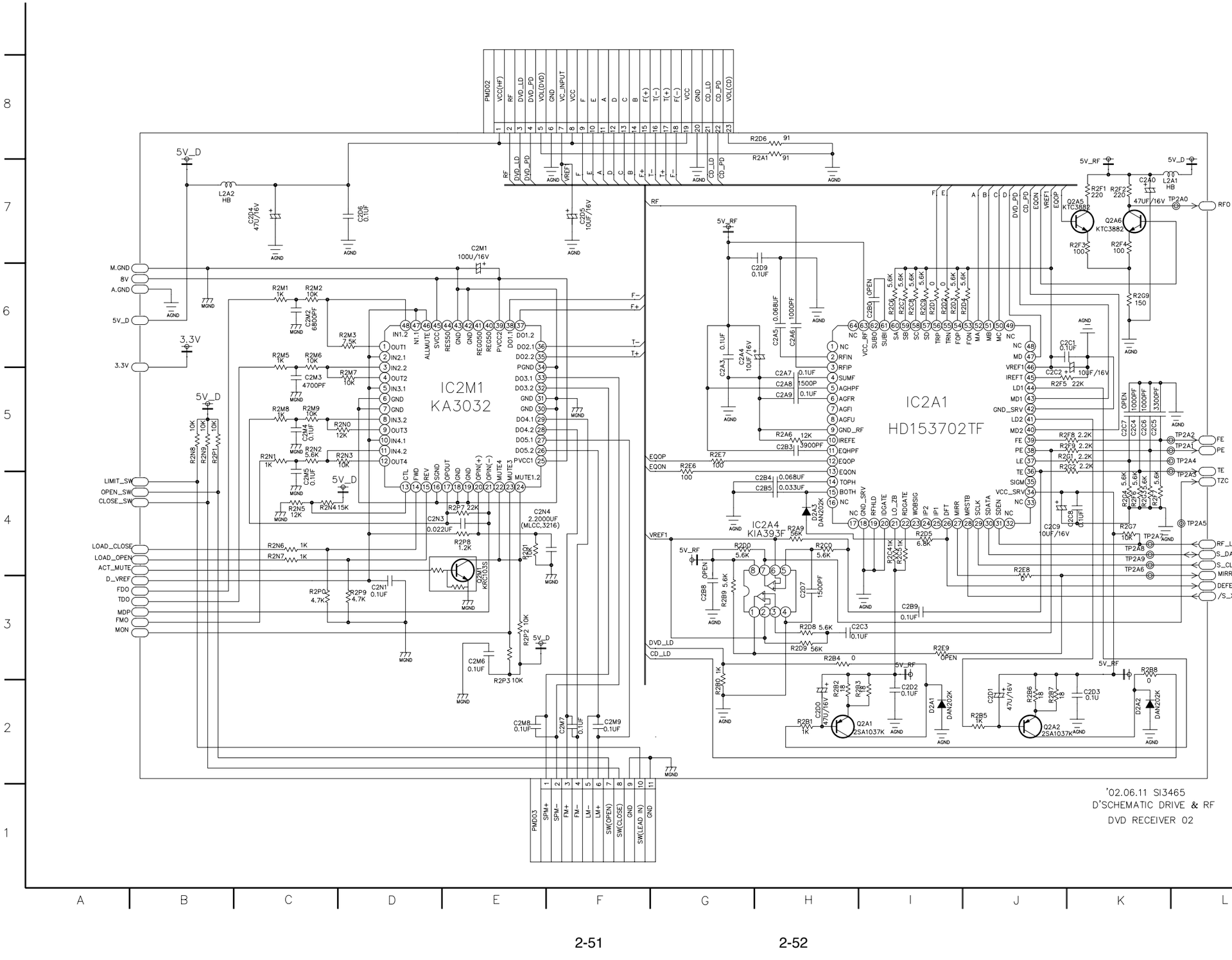
3. *μ*-COM Block Diagram



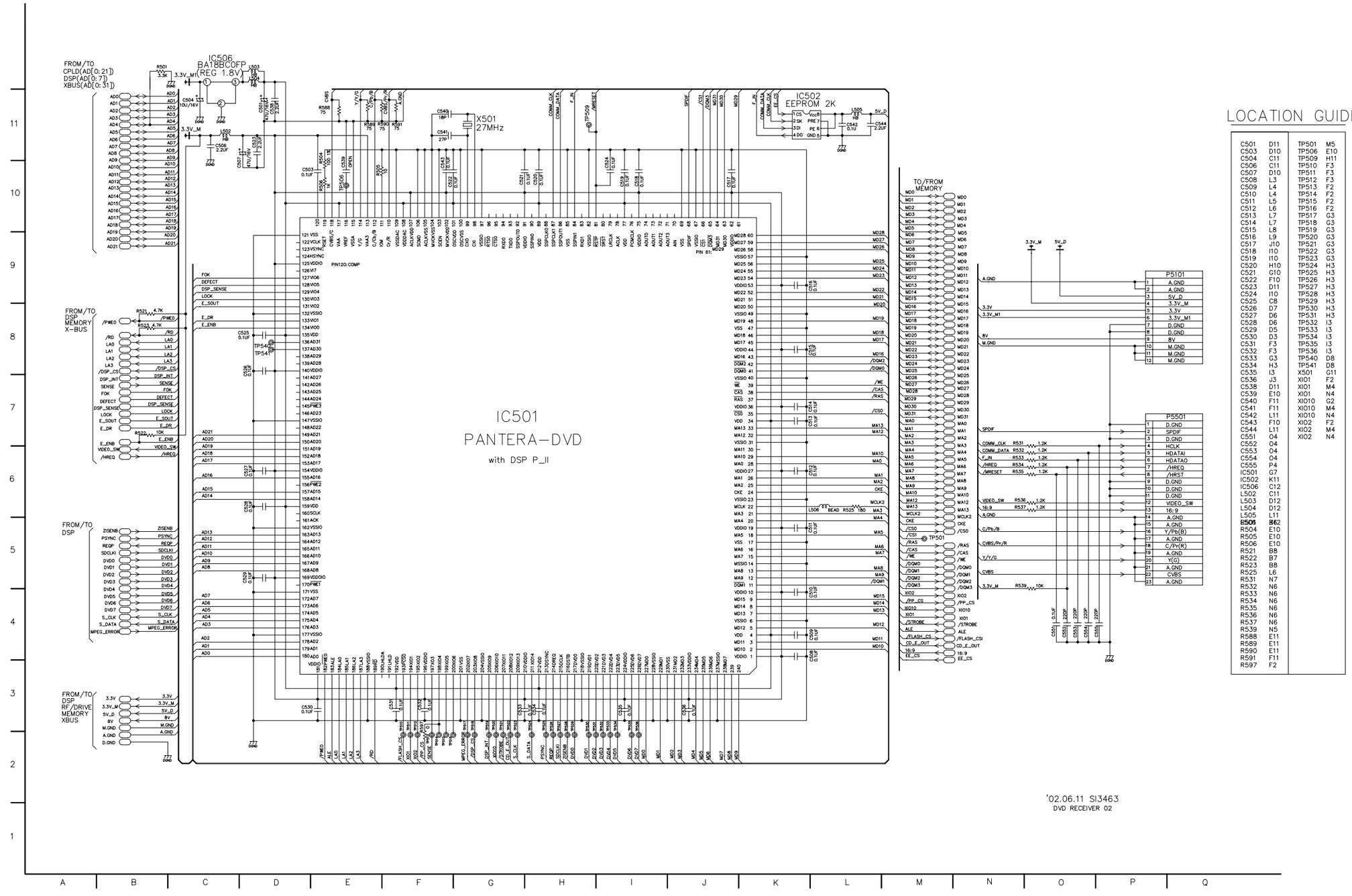
MEMO

SCHEMATIC DIAGRAMS

• DRIVE & RF SCHEMATIC DIAGRAM



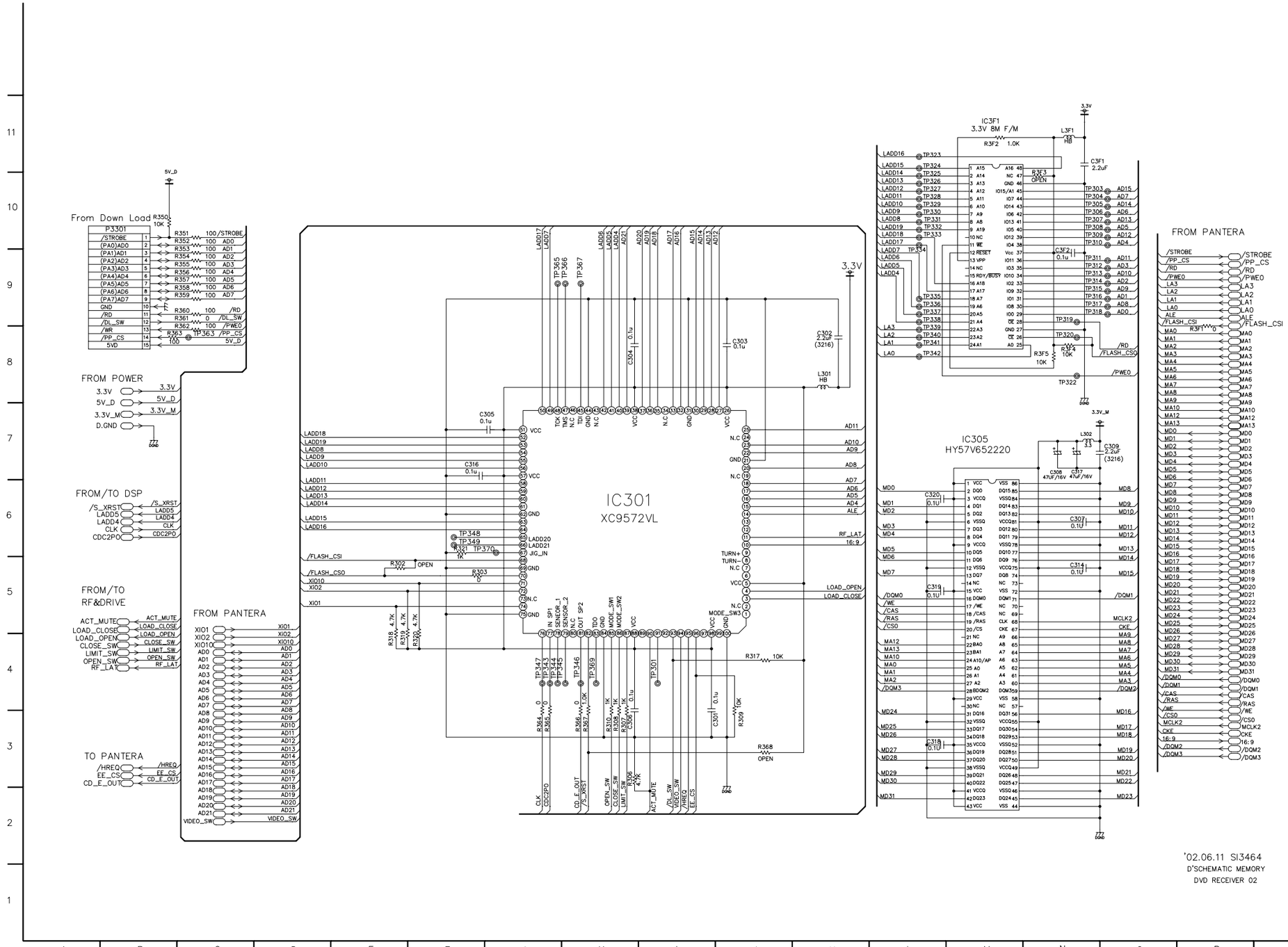
• MPEG SCHEMATIC DIAGRAM



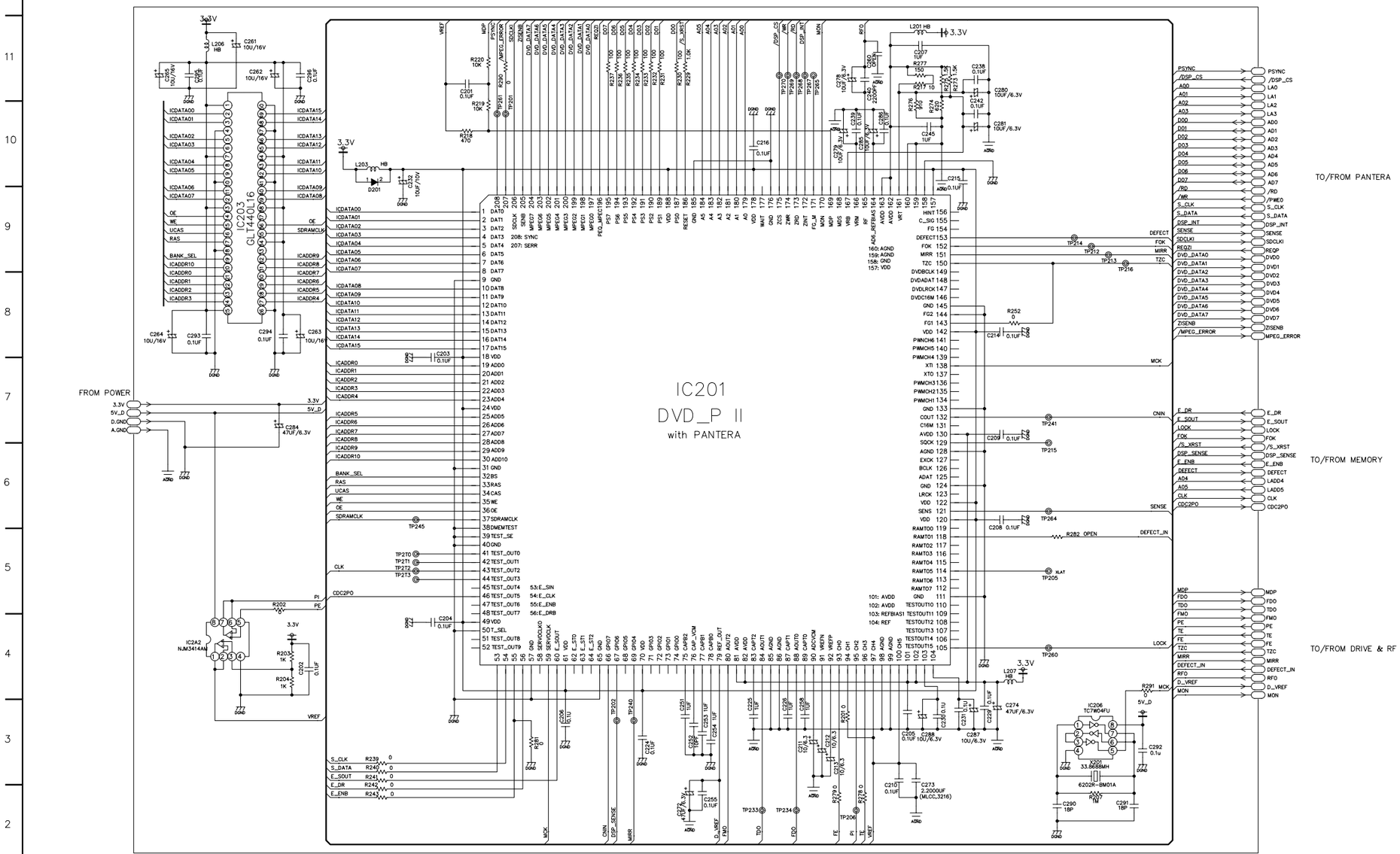
LOCATION GUIDE

C501	D11	TP501	M5
C503	D10	TP506	E10
C504	C11	TP509	H11
C506	C11	TP510	F3
C507	D10	TP511	F3
C508	L3	TP512	F3
C509	L4	TP513	F2
C510	L4	TP514	F2
C511	L5	TP515	F2
C512	L6	TP516	F2
C513	L7	TP517	G3
C514	L7	TP518	G3
C515	L8	TP519	G3
C516	L9	TP520	G3
C517	J10	TP521	G3
C518	I10	TP522	G3
C519	I10	TP523	G3
C520	H10	TP524	H3
C521	G10	TP525	H3
C522	F10	TP526	H3
C523	D11	TP527	H3
C524	I10	TP528	H3
C525	C8	TP529	H3
C526	D7	TP530	H3
C527	D6	TP531	H3
C528	D6	TP532	I3
C529	D5	TP533	I3
C530	D3	TP534	I3
C531	F3	TP535	I3
C532	F3	TP536	I3
C533	G3	TP540	D8
C534	H3	TP541	D8
C535	I3	X501	G11
C536	J3	XIO1	F2
C538	D11	XIO1	M4
C539	E10	XIO1	N4
C540	F11	XIO10	G2
C541	F11	XIO10	M4
C542	L11	XIO10	N4
C543	F10	XIO2	F2
C544	L11	XIO2	M4
C551	O4	XIO2	N4
C552	O4		
C553	O4		
C554	O4		
C555	P4		
IC501	G7		
IC502	K11		
IC506	C12		
L502	C11		
L503	D12		
L504	D12		
L505	L11		
L506	B12		
R504	E10		
R505	E10		
R506	E10		
R521	B8		
R522	B7		
R523	B8		
R525	L6		
R531	N7		
R532	N6		
R533	N6		
R534	N6		
R535	N6		
R536	N6		
R537	N6		
R539	N5		
R588	E11		
R589	E11		
R590	E11		
R591	F11		
R597	F2		

• μ-COM SCHEMATIC DIAGRAM

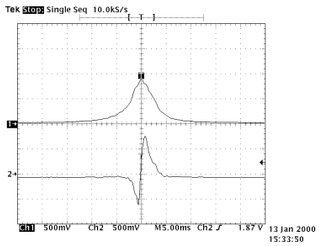


• DVD DSP(DIGITAL SIGNAL PROCESSING) SCHEMATIC DIAGRAM



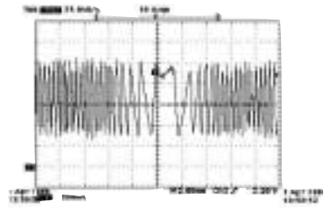
WAVEFORMS

1



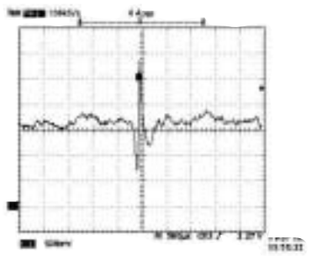
IC2A1 Pin 42, Focus Error
IC2A1 Pin 36, Pi

2



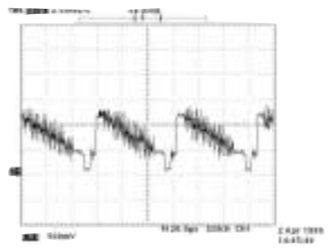
IC2A1 Pin 41
Tracking Error

3



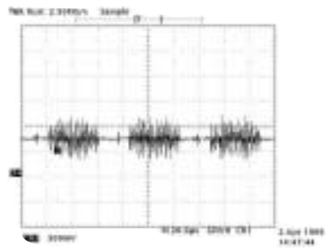
IC2A1 Pin 41
VBR TRACKING Error

1



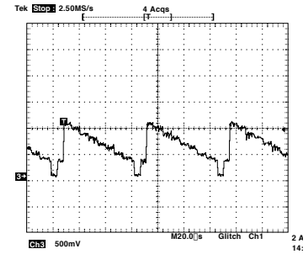
IC501 Pin 118, Composite

2



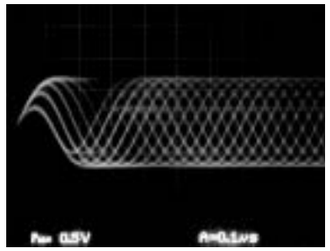
IC501 Pin 112, Chrominance
(Super video out Mode)

3



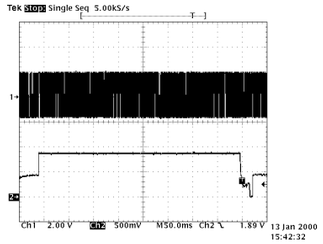
IC501 Pin 114, Luminance
(Super video out Mode)

4



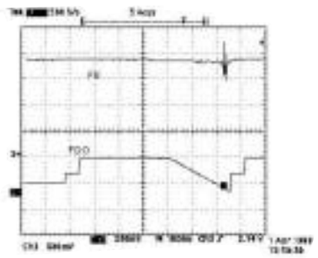
IC2A1 Pin 57
RF

5



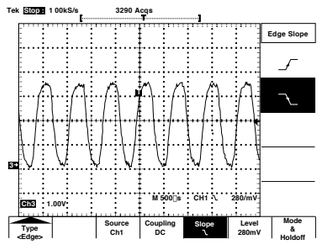
IC201, Pin 88, SLED Drive(FMO)
IC201, Pin 18 SLED FG

6



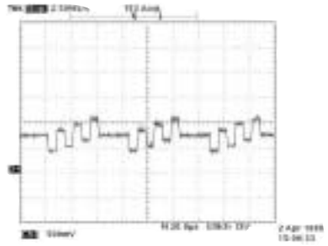
IC2A1 Pin 42, Focus Error(Focus Search)
IC2A1 Pin 83, Focus Drive(FDO)

4



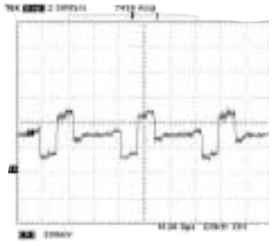
IC501 Pin 98,
MPEG Clock(27MHz)

5



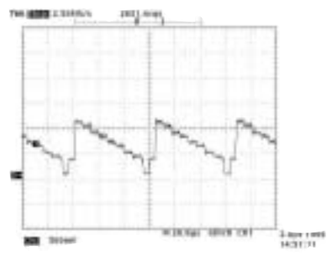
IC501 Pin 114,
Component Pb

6



IC501 Pin 112,
Component Pr

7



IC501 PIN 118,
COMPONENT Y

• CIRCUIT VOLTAGE CHART

	IC203		IC201		IC301		IC3F1		IC501		IC305		IC2A1		IC2M1	
PIN	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY
1	3.18	3.16	3.12	0	3.17	3.16	0	0	3.12	3.1	3.06	3.05	0	0	2.11	2.14
2	3.12	2.69	3.12	0	0	0	0	0	0	0.41	0.29	0.35	3.16	3.13	2.1	2.12
3	3.12	2.69	3.12	0	3.16	0	0	0	0	0.47	3.06	3.05	3.16	3.13	2.11	2.11
4	0	0	3.12	0	3.16	0	0	0	1.75	1.73	3.06	0.33	0.75	1.55	2.1	2.15
5	3.12	2.74	3.12	3.12	3.17	3.16	0	0	0	0.49	0	0	2.04	3.02	2.1	2.12
6	3.12	2.71	3.12	3.12	3.17	3.16	0	0	0	0	0	0	0	0	0	0
7	3.18	3.17	3.12	0	0	0	0	0	0	0.37	0	0.34	0	0	0	0
8	3.12	2.68	3.12	3.12	3.17	3.16	0	0	0	0.35	0.4	0	0	0.33	2.11	2.12
9	3.12	2.63	0	0	0	0	3.13	2.92	0	0.33	0	3.05	0	0	2.02	1.99
10	0	0	3.12	3.12	0	0	0	0	3.22	3.19	0.33	0	0.44	0	2.1	2.12
11	3.12	2.7	3.12	3.12	0	0	3.13	3.12	0	0	0.41	0	1.72	1.19	2.11	2.12
12	3.12	2.7	3.12	0	0	0	3.2	3.2	0	0	0	0	2.06	2.3	2.09	2.13
13	3.18	3.17	3.12	3.12	3.17	3.16	3.2	3.2	0	0	0	0.46	2.25	3.08	3.25	2.23
14	0	0	3.12	0	0	0	0	0	0	0	0	0	1.32	3.13	2.51	0
15	3.12	3.04	3.12	0	0	0	0	0	0	0.79	3.06	3.05	1.46	2.27	2.51	0
16	3.12	0	3.12	0	2.17	2.18	3.19	0	0	0.74	0	0	0	2.4	0	0
17	3.12	3.02	3.12	0	0.38	2.21	0	0	0	0	3.09	3.07	0	0	2.18	0
18	0	0	3.13	3.12	0.41	0.61	0	0	0	0.71	0	2.82	0	0	0	0
19	0	0	3.13	0	0	0	0	0	3.22	3.1	2.84	3.03	0	0	0	0
20	0	3.12	0	0	0	0	0	0	3.22	3.13	3.05	2.76	0	0	1.52	1.89
21	3.13	0	3.13	0	0	0	0	0	3.22	3.13	0	0	3.01	5.01	1.88	1.89
22	3.13	3.17	0	0	0	0	0	0	1.64	0	0	1.38	3.85	5.01	0	0
23	3.13	0	0	0	0	0	0	0	0	0	0.8	0.79	0	0	3.13	0
24	0	0	3.13	0	0	0	0	0	3.22	3.13	0	0	0	0	0	0
25	3.18	0	3.12	0	0	0	3.11	3.11	0	3.13	1.14	1.1	0	0	7.95	7.92
26	0	0	0	0	3.21	3.16	3.17	3.2	0	3.13	0.38	1.54	3.31	3.63	3.92	3.71
27	0	0	0	3.12	0	0	0	0	3.22	3.11	0	0	0	0	3.92	3.71
28	3.12	0	0	0	0	0	3.11	0	0	1.1	0	0	3.14	3.16	3.9	3.74
29	0	3.12	0	0	0	0	0.61	1.07	0	0	0	0.05	5.15	5.14	3.95	3.68
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	0	3.17	0	3.12	0	0	0.6	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	3.22	1.39	0	0	0	0	1.18	4.2
33	3.1	0	3.12	0	0	0	0.59	0	3.22	0.8	0	0	0	0	1.18	3.43
34	3.18	0	3.12	0	0	0	0	0	1.75	1.52	0.34	0	5.03	4.99	0	0
35	1.5	0	3.12	0	0	0	0.61	0	3.22	2.76	3.03	3.05	2.29	2.34	3.92	3.75
36	0	3.12	0	0	0	0	0	0	3.22	3.11	0	0.34	2.2	2.3	3.93	3.73
37	0	0	1.51	0	0	0	3.18	0	3.22	3.03	0	0	2.2	2.2	3.92	3.73
38	3.18	0	0	0	3.17	3.16	0	0	3.22	2.83	0	0	2.29	2.26	3.92	3.68
39	3.12	3.12	0	0	0	0	0	0	3.22	3.08	0.56	0	2.24	2.24	7.95	7.94
40	3.12	3.12	0	0	0	0	2.17	0	0	0	0.56	0	0	0	7.91	7.87
41	0	3.17	0	0	0	0	0	0	0	0	0	3.05	5.03	5.01	0	0
42	3.12	0	0	0	0	0	0.38	2.28	0	0	3.03	0.45	0	0	0	0
43	3.12	0	0	0	0	0	0	0	0	0.34	3.03	3.05	0	0	0	0
44	3.18	0	0	0	0	0	0.41	0.65	3.22	3.11	0	0	5.03	1.59	0	0
45	3.12	3.12	0	0	3.17	3.15	0	0	0.45	0.33	0	0.44	2.3	2.3	7.95	7.94
46	2.76	3.12	1.56	0	0	0	0	0	0	0	0	0	2.3	2.3	2.11	2.12
47	0	0	0.91	0	3.17	3.15	0	0	0	0	0.38	0	1.74	2.3	2.1	2.12
48	3.12		1.65	0	2.19	0	0	0	0	0	0	0	0	0	2.11	2.12
49	3.12		3.14	0.53	0	0			0	0	3.03	0	0	0		
50	0		0	0	0	0			0.43	0.39	0.36	3.05	2.3	2.3		
51			0.64	0	3.17	0			0.42	0.45	0	0.34	2.3	2.3		
52			0.43	0	3.17	3.19			0.43	0.35	0	0	2.3	2.3		
53			0	0	3.11	2.91			3.12	3.11	0	0	2.3	2.3		
54			2.58	0	0	0			0	0	0.41	0	2.3	2.3		
55			0	0	0	0			0	0.33	3.03	3.05	2.3	2.3		
56			3.11	0	0	0			0.39	0.36	0	0.34	2.3	2.3		
57			0	0	3.17	3.19			0	0	0	0	2.3	2.3		
58			1.65	0	0	0			0	0	0	0	2.3	2.3		
59			1.79	0	0	0			0	0.42	0	0	2.29	2.3		
60			0	0	0	0			0.44	0.4	0	0.79	2.29	2.3		
61			3.13	0	0	0			0.44	0.47	0	0.79	0.36	0.56		
62			0	0	0	0			3.12	3.11	0	2.26	0.37	0.62		
63			3.13	0	0	0			0.45	0.35	0	0.74	5.03	5.02		
64			0	0	0	0			0	0	0	0.78	0	0		
65			0	0	0	0			0	0	0	0				
66			3.12	0	0	0			0	0	0	0				
67			0	0	0	0			0	0.31	3.11	3.1				
68			3.13	3.12	3.11	3.1			1.51	0	1.6	1.59				
69			4.08	0	0	0			0	1.5	0	0				
70			3.13	0	0	3.16			1.47	0	0	0				
71			0	0	3.11	3.1			0	0	0	0				
72			3.13	3.13	0	0			0	0	0	0				
73			0	0	0	0			0	0	0	0				
74			0	0	3.11	3.1			0	0	0	0.45				
75			0.78	0	0	0			3.12	3.11	3.04	3.05				
76			1.41	0	0	0			1.48	1.26	0	0				
77			0.77	0	0	0			1.74	1.74	0	0				
78			0.77	0	0	0			1.54	1.54	0	0				
79			2.1	2.11	3.17	0			1.56	1.55	0	0				
80			2.12	2.11	0	0			3.11	3.1	0	0.34				
81			3.18	0	3.17	0			3.01	3.01	1.69	0				

	IC203		IC201		IC301		IC3F1		IC501		IC305		IC2A1		IC2M1	
PIN	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY
82			3.18	0	3.17	3.19			0	0	0	0				
83			1.93	1.93	2.12	2.27			0	0.33	0	0				
84			2.11	2.11	0	0			1.74	5.12	0	0				
85			0	0	4.41	4.41			0	0	0	0.33				
86			0	0	0	0			0	0	0	0				
87			1.93	0	0	0			1.42	3.11						
88			2.1	0	3.17	3.19			1.87	3.11						
89			1.93	1.92	2.66	0			1.67	1.74						
90			1.59	0	0	3.17			0	0						
91			0.8	0	3.19	0			3.11	3.11						
92			2.36	2.36	3.19	3.19			0	3.11						
93			2.24	1.6	3.19	3.19			3.11	3.11						
94			1.58	1.56	0	0			0	0.34						
95			1.64	1.62	3.13	3.13			0	0.34						
96			1.58	1.62	0	0			2.82	3.11						
97			1.58	1.56	3.19	3.19			0	0						
98			0	0	3.19	3.19			0.85	0.92						
99			0	0	0.36	0.36			0.89	0.93						
100			1.58	0	0	0			0	0						
101			3.18	0					1.79	1.74						
102			3.18	0					3.23	3.1						
103			2.01	2.01					0	0						
104			2.01	2.01					0	0						
105			0	0					0	0						
106			3.12	0					0	0						
107			2.07	3.12					3.23	3.09						
108			0.41	0					1.74	1.74						
109			0	0					0	0						
110			2.15	0					1.75	1.3						
111			0	0					0.34	0.74						
112			0	0					0	1.39						
113			0	0					3.2	3.1						
114			0	0					0.49	0.64						
115			0	0					0	0						
116			0	0					1.17	1.29						
117			0	0					1.79	1.74						
118			0	0					0	0.74						
119			0	0					1.17	1.28						
120			3.12	0					2.04	1.82						
121			0	0					0	0						
122			3.12	3.12					0	0						
123			3.12	3.12					0	0.36						
124			0	0					0	0.36						
125			3.12	3.12					3.16	3.1						
126			3.12	0					0	0.36						
127			2.42	0					0	0						
128			0	0					0	0						
129			2.41	0					0	0						
130			3.18	3.17					0	0						
131			3.12	3.12					0	0						
132			3.12	0					0	0						
133			0	0					3.13	0						
134			3.12	3.12					0	0						
135			3.12	3.12					1.74	1.74						
136			2.45	2.33					0	0						
137			1.68	1.65					0	0						
138			1.77	1.87					0	0						
139			2.45	2.33					0	0						
140			2.61	0.32					3.13	3.1						
141			2.54	0					0	0						
142			3.12	0					0	0						
143			0	0					0	0						
144			0	0					0	0						
145			0	0					3.13	3.09						
146			2.54	0					0	0						
147			2.54	0					0	0						
148			2.54	0					0	0						
149			2.54	0					0	0						
150			4.76	0					0	0						
151			4.13	0					0	0						
152			0	0					0	0						
153			0	0					0	0						
154			0	0					3.13	3.1						
155			3.12	0					0	0						
156			3.12	0					3.13	3.09						
157			3.12	0					0	0						
158			0	0					0	1.73						
159			0	0					1.74	1.73						
160			0	0					1.12	1.83						
161			2.64	2.62					3.13	0						
162			3.18	3.16					0	0						

	IC203		IC201		IC301		IC3F1		IC501		IC305		IC2A1		IC2M1	
PIN	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY
163			3.18	3.15					0	0						
164			2.02	0					0	0						
165			2.08	0					0	0						
166			2.09	0					0	0						
167			1.57	0					0	0						
168			2.51	0					0	0						
169			1.6	1.57					3.13	3.1						
170			3.13	3.01					3.13	0						
171			2.53	0					0	0						
172			0	0					0.44	0.6						
173			3.11	0					0.4	2.15						
174			3.11	0					2.2	2.15						
175			3.11	3.1					0	0						
176			0	0					0.66	0.8						
177			3.12	0					0	0						
178			3.12	2.59					0.65	0.83						
179			3.11	3.03					0.65	0.79						
180			0	0					0.67	0.79						
181			0	0					0	3.1						
182			0	0					3.13	3.1						
183			0	0					0	0						
184			0	0					3.13	3.1						
185			0	0					0	0						
186			3.17	0					0	0						
187			0.69	0					0	0						
188			3.18	3.12					0	0						
189			0.66	0.77					0	3.1						
190			0.65	0					0	0						
191			0.67	0.87					0	0						
192			0	0					0	1.75						
193			2.21	2.17					3.13	3.09						
194			0.41	0					3.13	3.16						
195			0.45	0					0	0						
196			0	0					3.13	3.1						
197			0	0					0	0						
198			0	0					3.13	0						
199			0	3.12					3.13	3.1						
200			0	0					0	3.1						
201			0	0					0	0						
202			0	1.22					3.18	0						
203			0	1.22					3.18	3.1						
204			0	0					0	0						
205			3.11	3.11					0	0						
206			1.53	3.11					0	3.1						
207			3.12	0					0	0						
208			3.12	3.12					0.37	0						
209									0	0						
210									3.13	3.1						
211									0	0						
212									0	0						
213									0	0						
214									0	0						
215									0	0						
216									0	0						
217									0	0						
218									0	0						
219									0	0						
220									0	3.12						
221									0	0						
222									0	0						
223									0	0						
224									0	0						
225									3.13	0						
226									0	0						
227									0	0.41						
228									0	0						
229									0	0						
230									0	0						
231									0	0						
232									0	0.43						
233									3.24	0						
234									0	0.45						
235									0	0.34						
236									0	0						
237									0	0						
238									0	0						
239									0	0						
240									0	0.36						
241																
242																
243																

	IC901		IC451		IC401		IC454		IC453		IC452		IC402		IC801	
PIN	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY
1	0	0	0	0	2.98	2.98	5.51	5.51	5.41	5.42	5.49	0	5.47	5.47	1.83	1.81
2	5.1	5.05	3.15	3.15	3.26	3.26	5.51	5.51	5.41	5.42	5.49	5.51	5.47	5.47	0	0
3	0	0	3.15	3.15	0	0	5.51	5.51	5.41	5.41	5.49	5.51	5.47	5.47	1.83	1.81
4	5.14	5.14	3.15	3.14	1.57	0	0	0	0	0	0	0	0	0	0	0
5	0.48	0	3.15	3.15	1.58	1.58	5.51	5.51	5.41	5.41	5.49	5.51	5.47	5.47	0	0
6	0.48	0	3.15	3.15	1.3	0	5.51	5.51	5.41	5.42	5.49	5.51	5.47	5.47	4.59	4.57
7	5.17	5.17	3.15	3.15	0	0	5.51	5.51	5.41	5.41	5.49	0	5.47	5.47	1.84	1.82
8	2.22	2.21	2.43	2.42	3.24	3.24	11.95	11.95	11.95	11.95	11.95	11.95	11.95	11.95	0	0
9	2.35	2.35	2.48	2.46	0	0									1.84	1.82
10	0	0	2.43	2.42	3.2	3.19										
11	2.26	2.24	2.48	0	4.85	4.84										
12	2.46	2.45	0	0	2.31	0										
13	0	0	0	0	2.35	0										
14	5.17	5.16	0	0	2.35	0										
15	5.17	5.16	2.43	2.43	0	0										
16	5.1	5.06	2.47	3.14	0	0										
17	0	0	2.45	0	4.91	0										
18	0	0	0	0	2.34	2.34										
19	5.16	5.16	4.91	4.88	2.34	2.33										
20	5.14	5.14	0	0	0	0										
21	5.01	5.02	0	0												
22	0	0	0	0												
23	0	0	4.91	0												
24	0	0	0	0												
25	2.68	2.68	4.9	4.88												
26	5.17	5.17	0	0												
27	5.17	5.17	0	0												
28	4.77	4.87	0	0												
29	5.07	5.06	0	0												
30	21.58	18	4.91	4.88												
31	23.58	18	0	0												
32	23.6	23	4.91	4.88												
33	27.54	21.21	0	0												
34	23.6	17.18	0.36	0												
35	23.6	22.91	0	0												
36	21.6	19.14	3.24	3.23												
37	21.61	25.01	3.19	3.19												
38	23.65	23.06	2.93	3.92												
39	23.65	23.09	0	0												
40	23.57	23.08	0	0												
41	25.6	23.07	1.3	1.31												
42	25.6	25.03	1.48	1.47												
43	25.6	25.03	1.57	0												
44	25.6	23.07	1.58	1.58												
45	27.6	25.07	0	0												
46	27.6	21.16	3.15	3.15												
47	27.5	25.11	0	0												
48	27.5	24.76	0	0												
49	27.5	27.86	0	0												
50	27.5	26.88	0	0												
51	6.73	6.69	3.15	3.14												
52	25.7	25.13	0	0												
53	25.6	25.08														
54	25.6	25.16														
55	25.6	25.15														
56	25.6	25.08														
57	25.6	25.13														
58	27.7	27.08														
59	5.16	5.15														
60	5.16	5.16														
61	5.16	5.16														
62	5.16	5.16														
63	0	0														
64	0	0														

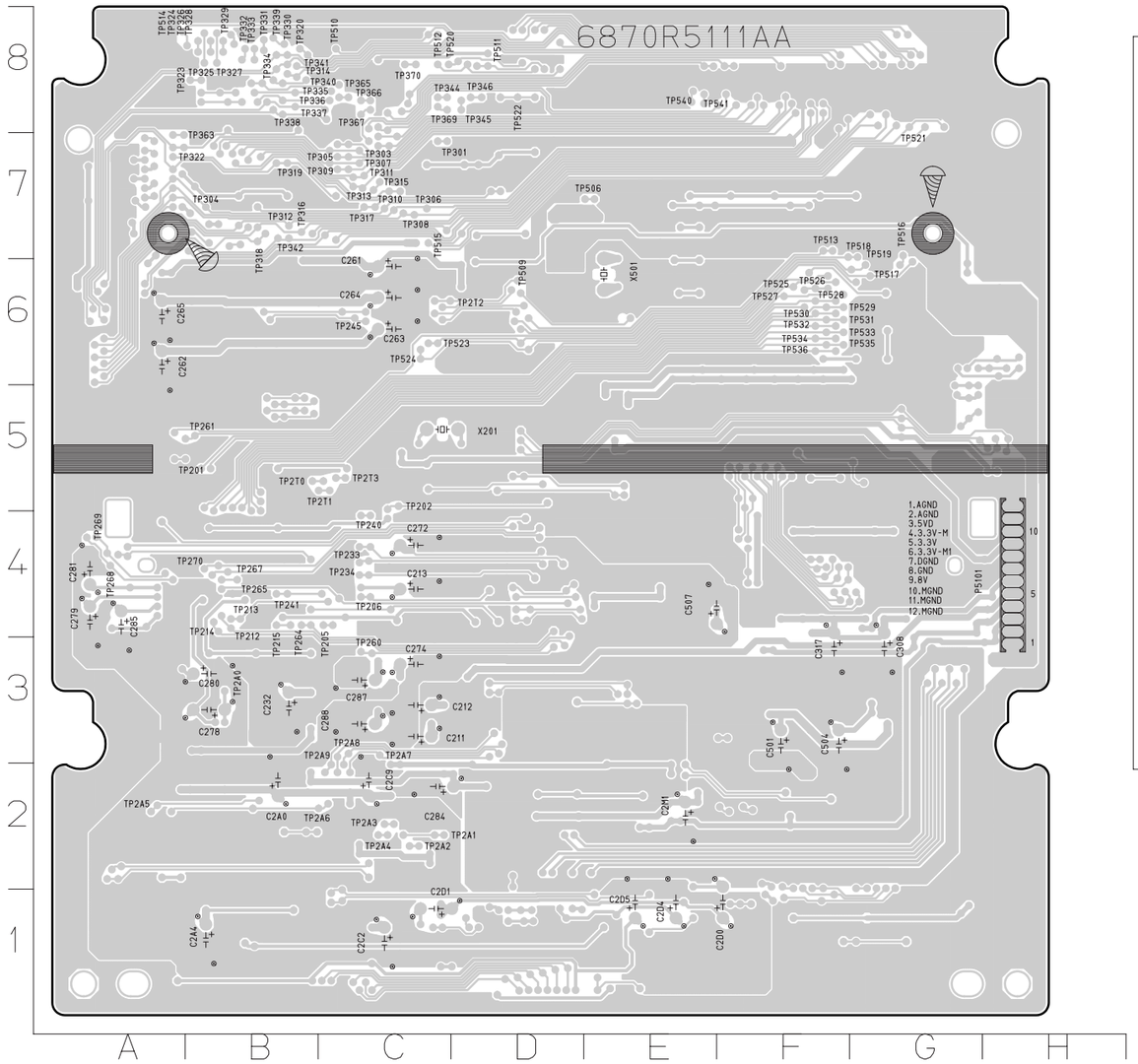
	IC503		IC502		IC2A4		IC2A2		IC206		IC504		IC506	
PIN	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY
1	0	0	0	0	4.87	4.39	1.57	1.56	2.63	2.64	2.11	2.19	(IN)0	0
2	3.1	3.1	5.03	5.03	2.3	2.31	1.57	1.56	2.74	0	5.05	5.05	(OUT)1.80	0
3	5.03	5.03	0	0	2.29	2.29	1.57	0	2.74	2.76	2.37	2.44		
4	0	0	5.1	5.1	0	0	0	0	0	0	0	0		
5	0	0	0	0	2.29	2.29	1.62	1.62	1.92	1.88				
6	0	0	5.04	5.04	2.3	2.31	1.62	1.62	2.28	0				
7	5.05	5.05	0	0	2.51	2.45	1.62	1.62	2.28	0				
8	0	3.15	5.03	5.04	5.02	5.02	5.04	4.99	5.04	0				
9	0	0												
10	0	0												
11	0	0.46												
12	0	0.15												
13	3.11	3.1												
14	0	0												
15	0	0												
16	0	0												
17	3.09	3.09												
18	5.15	5.14												
19	0	0												
20	5.15	5.15												

	Q2M1		Q2A1		Q2A6		Q2A5		Q2A2	
	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY
E	0	0	5.02	0	0	2.41	2.34	2.35	5.02	4.95
B	0	0	0	0	3.62	3.72	3.82	0	0	0
C	0	3.14	0	0	0	3.1	0	0	5.01	4.94

	Q610		Q611		Q609		Q613		Q614		Q612	
PIN	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY
Emitter	0	0	0	0	0	0	0	0	0	0	0	0
Collector	0	0	0	0	0	0	0	0	0	0	0	
Base	0.77	0.78	0.77	0.77	0.76	0.77	0.76	0.77	0.77	0.77	0.76	0.79

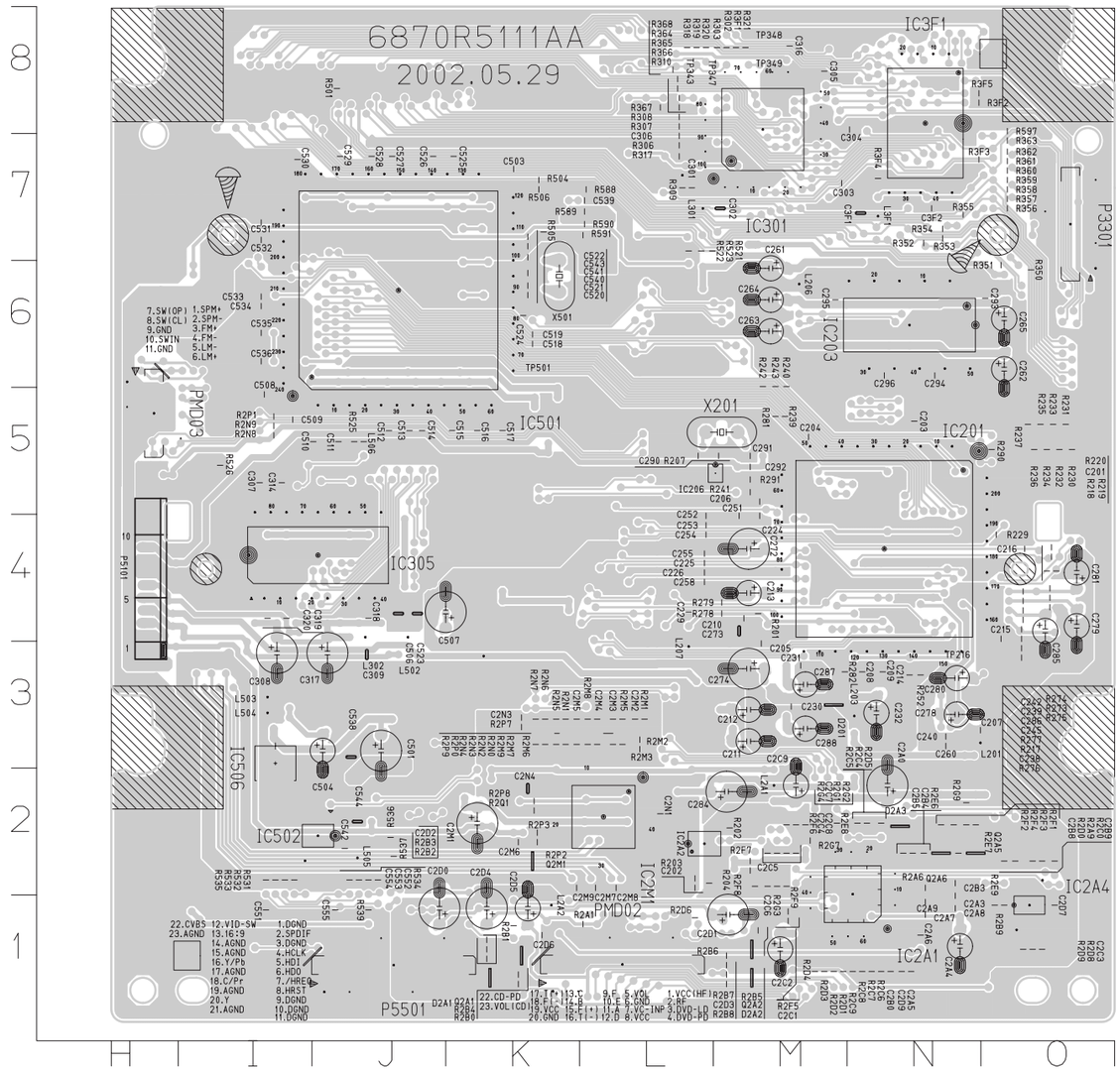
PRINTED CIRCUIT DIAGRAM

• DVD P.C. BOARD(SOLDER SIDE)



TP201	B5	TP306	C7	TP363	A7
TP202	C5	TP307	C7	TP365	C8
TP205	C4	TP308	C7	TP366	C8
TP206	C4	TP309	C7	TP367	C8
TP212	B4	TP310	C7	TP369	C8
TP213	B4	TP311	C7	TP370	C8
TP214	B4	TP312	B7	TP506	E7
TP215	B4	TP313	C7	TP509	D6
TP233	C4	TP314	B8	TP510	C8
TP234	C4	TP315	C7	TP511	D8
TP240	C4	TP316	B7	TP512	C8
TP241	B4	TP317	C7	TP513	F7
TP245	C6	TP318	B7	TP514	B8
TP260	C3	TP319	B7	TP515	C7
TP261	B5	TP320	B8	TP516	G6
TP264	B4	TP322	A7	TP517	G6
TP265	B4	TP323	B8	TP518	G7
TP267	B4	TP324	B8	TP519	G6
TP268	A4	TP325	B8	TP520	C8
TP269	A4	TP326	B8	TP521	G8
TP270	B4	TP327	B8	TP522	D8
TP2A0	B3	TP328	B8	TP523	C6
TP2A1	C2	TP329	B8	TP524	C6
TP2A2	C2	TP330	B8	TP525	F6
TP2A3	C2	TP331	B8	TP526	F6
TP2A4	C2	TP332	B8	TP527	F6
TP2A5	A2	TP333	B8	TP528	F6
TP2A6	C2	TP334	B8	TP529	F6
TP2A7	C3	TP335	B8	TP530	F6
TP2A8	C3	TP336	B8	TP531	F6
TP2A9	C3	TP337	B8	TP532	F6
TP2T0	B5	TP338	B8	TP533	F6
TP2T1	C5	TP339	B8	TP534	F6
TP2T2	C6	TP340	B8	TP535	F6
TP2T3	C5	TP341	B8	TP536	F6
TP301	C7	TP342	B7	TP540	E8
TP303	C7	TP344	C8	TP541	E8
TP304	B7	TP345	D8		
TP305	C7	TP346	D8		

• DVD P.C. BOARD(COMPONENT SIDE)



C201	04	C285	04	C2M6	K2	C527	J7	L502	J4	R290	05	R2G7	M2	R358	07
C202	L2	C286	04	C2M7	L2	C528	J7	L503	I3	R291	M5	R2G9	N2	R359	07
C203	N5	C287	M3	C2M8	L2	C529	J7	L504	I3	R2A1	L1	R2M1	L3	R360	07
C204	M5	C288	M3	C2M9	K2	C530	I7	L505	J2	R2A6	N2	R2M2	L3	R361	07
C205	M3	C290	L5	C2N1	L2	C531	I7	L506	J5	R2A9	02	R2M3	L3	R362	07
C206	M5	C291	M5	C2N3	K3	C532	I7	P3301	07	R2B0	K1	R2M5	L3	R363	07
C207	N3	C292	M5	C2N4	K2	C533	I6	P5101	H3	R2B1	K1	R2M6	L3	R364	L8
C208	N3	C293	06	C301	L7	C534	I6	P5501	J1	R2B2	K1	R2M7	L3	R365	L8
C209	N3	C294	N6	C302	M7	C535	I6	PMD02	L1	R2B3	K1	R2M8	L3	R366	L8
C210	M4	C295	M6	C303	M7	C536	I6	PMD03	H5	R2B4	K1	R2M9	L3	R367	L8
C211	M3	C296	N6	C304	N8	C538	J3	Q2A1	K1	R2B5	M1	R2N0	L3	R368	L8
C212	M3	C2A0	N2	C305	M8	C539	L7	Q2A2	M1	R2B6	M1	R2N1	K3	R3F1	M8
C213	M4	C2A3	N1	C306	L7	C540	K6	Q2A5	N2	R2B7	M1	R2N2	K3	R3F2	N8
C214	N3	C2A4	N1	C307	I5	C541	K7	Q2A6	N2	R2B8	M1	R2N3	K3	R3F3	N7
C215	04	C2A5	N1	C308	I3	C542	J2	Q2M1	K2	R2B9	01	R2N4	K3	R3F4	N7
C216	04	C2A6	N1	C309	J3	C543	K7	R201	M4	R2C0	02	R2N5	K3	R3F5	N8
C224	M4	C2A7	N1	C314	I5	C544	J2	R202	M2	R2C4	N2	R2N6	K3	R501	J8
C225	L4	C2A8	N1	C316	M8	C551	I1	R203	L2	R2C5	N2	R2N7	K3	R504	K7
C226	L4	C2A9	N1	C317	J3	C552	J2	R204	L2	R2C6	N1	R2N8	I5	R505	K7
C229	L4	C2B0	N1	C318	J4	C553	J2	R207	M5	R2C7	N1	R2N9	I5	R506	K7
C230	M3	C2B3	N2	C319	I4	C554	J2	R217	04	R2C8	N1	R2P0	K3	R521	L7
C231	M3	C2B4	N2	C320	I4	C555	J1	R218	04	R2C9	N1	R2P1	I5	R522	L7
C232	N3	C2B5	N2	C3F1	N7	D201	M3	R219	04	R2D0	02	R2P2	K2	R523	L7
C238	03	C2B8	02	C3F2	N7	D2A1	K1	R220	04	R2D1	M1	R2P3	K2	R525	J5
C239	04	C2B9	02	C501	J3	D2A2	M1	R229	04	R2D2	M1	R2P7	K3	R526	I5
C240	N3	C2C1	M1	C503	K7	D2A3	N2	R230	05	R2D3	M1	R2P8	K2	R531	I2
C242	04	C2C2	M1	C504	J3	IC201	N4	R231	05	R2D4	M1	R2P9	K3	R532	I2
C245	04	C2C3	01	C506	J4	IC203	N6	R232	05	R2D5	N2	R2Q1	K2	R533	I2
C251	M4	C2C4	M2	C507	J4	IC206	M5	R233	05	R2D6	L1	R302	M8	R534	J2
C252	L4	C2C5	M2	C508	I5	IC2A1	N2	R234	05	R2D8	01	R303	M8	R535	I2
C253	L4	C2C6	M2	C509	I5	IC2A2	L2	R235	05	R2D9	01	R306	L7	R536	J2
C254	L4	C2C7	M2	C510	J5	IC2A4	01	R236	05	R2E6	N2	R307	L8	R537	J2
C255	L4	C2C8	M2	C511	J5	IC2M1	L2	R237	05	R2E7	N2	R308	L8	R539	J1
C258	L4	C2C9	M2	C512	J5	IC301	M8	R239	M5	R2E8	M2	R309	L7	R588	L7
C260	N3	C2D0	J1	C513	J5	IC305	J4	R240	M6	R2E9	01	R310	L8	R589	L7
C261	M6	C2D1	M1	C514	J5	IC3F1	N8	R241	M5	R2F1	N2	R317	L7	R590	L7
C262	06	C2D2	K1	C515	K5	IC501	J6	R242	M6	R2F2	N2	R318	L8	R591	L7
C263	M6	C2D3	M1	C516	K5	IC502	J2	R243	M6	R2F3	N2	R319	L8	R597	08
C264	M6	C2D4	K1	C517	K5	IC506	I3	R252	N3	R2F4	N2	R320	L8	TP216	N3
C265	06	C2D5	K1	C518	K6	L201	N3	R273	04	R2F5	M1	R321	M8	TP343	L8
C272	M4	C2D6	K1	C519	K6	L203	N3	R274	04	R2F6	M2	R350	06	TP347	L8
C273	M4	C2D7	01	C520	K6	L206	M6	R275	04	R2F7	M2	R351	06	TP348	M8
C274	M3	C2D9	N1	C521	K6	L207	L3	R276	03	R2F8	M2	R352	N7	TP349	M8
C278	N3	C2M1	K2	C522	K7	L2A1	M2	R277	04	R2F9	M2	R353	N7	TP501	K6
C279	04	C2M2	L3	C523	J4	L2A2	K1	R278	M4	R2G1	M2	R354	N7	X201	M5
C280	N3	C2M3	L3	C524	K6	L301	L7	R279	M4	R2G2	M2	R355	N7	X501	K6
C281	04	C2M4	L3	C525	K7	L302	J4	R281	M5	R2G3	M2	R356	07		
C284	M2	C2M5	K3	C526	J7	L3F1	N7	R282	M3	R2G4	M2	R357	07		

MEMO

MEMO

TOSHIBA CORPORATION
1-1, SHIBAURA 1−CHOME,MINATO−KU, TOKYO 105 − 8001,JAPAN